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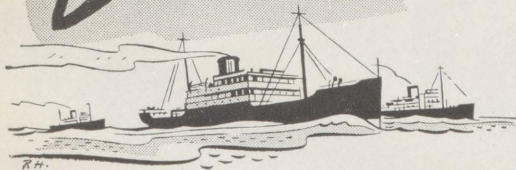


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Prices of Dairy Products

The War Prices and Trade Board recently announced discontinuance of the bonuses previously paid on some dairy products in some sections and new prices for dairy products. The general features of the new prices are here outlined.

The new cheese quota for overseas, a minimum of 125,000,000 lbs. for the 12 months beginning April first, 1942 is over ten per cent above the quota of the previous year. The price amounts to 20 per cent or one-fifth more than that prevailing in the previous season. Prices of other dairy products are calculated from the basis of the cheese price.

The aim of the regulations is to provide, if possible, the required supply and at the same time keep domestic prices under the ceiling. Some preference has been given to the prices allowed for products such as cheese and manufactured milk products required overseas. Price ceilings do not apply to farm products that are exported. The major portion of dairy products is consumed in the domestic market in the form of butter and fluid milk. Prices of these two products are not altered much with the new regulations to the consumer. The bonus which kept the retail price of fluid milk under the ceiling during the past winter is now withdrawn. The result is that producers of fluid milk will secure similar prices in the summer of 1942 to those prevailing during the previous summer. Winter prices for fluid milk await further consideration.

Both seasonal influences and locality are recognized in the butter prices. These range, wholesale, from 35 cents per pound in the summer months to 38½ cents in March and April 1943, with a slightly lower price for the surplus areas to provide for transportation. The regular increase during the winter months provides for carrying costs. A minimum as well as a maximum price is ensured through support of the price by the Dairy Supply Board or other government agency, if the price falls more than 3 cents per pound below the maximum.

Prices of fluid milk have been regulated provincially or locally for years. Provincial agencies retain the task of regulating prices in minor markets with the concurrence of the board. With the assistance of provincial agencies certain key markets are named with the prices proposed. A few reductions in present prices are required. Some increases are permitted. Most present prices remain unchanged.

Students Face Important Decision

When this number appears, high school students everywhere will be preparing for their final examinations, which will bring to an end this important stage of their careers.

Each student must reach a decision as to whether this shall be the end of his formal schooling or whether he or she will continue with his or her academic training. It is quite true that a university career is not for everyone, but for those who are equipped for such a career, Macdonald College offers a number of important advantages.

The thorough scientific and practical training afforded by the courses in Agriculture or Household Science is a suitable preparation for many different fields. For the young man who may later enter the army, it affords an opportunity to continue his education, secure a minimum of military instruction and at the same time place himself in a better position to face the problems of the post war world. The Women's War Training Programme also offers opportunities for young women to prepare themselves for special war duties. The work of training N.C.O.'s for a Women's Red Cross Detachment to be organized next year is already under way.

Nebuchadnezzar Was Right!

by W. H. Brittain

HISTORIANS relate how, twenty-five hundred years ago, the great King Nebuchadnezzar made his capital city of Babylon the wonder of the ancient world. His "new palace", built in fifteen days, his hanging gardens, temples and fortifications, bore witness to his boundless energy and enthusiasm. But after putting forth such prodigious exertions and completing these great works, the King began to act in a most peculiar manner. He withdrew from the haunts of men and 'ate grass like the oxen.' No wonder his people thought him mad! But modern food specialists point out that at least there was method in the madness of the King. For it is now known that fresh young grass is rich in many of the elements necessary to growth and health.

But, in the year 1942, grass as a food for humans is little more popular than in 600 B.C. Recent official efforts in Great Britain, for example, to popularize grass as a human food by introducing it into sausages and other foods, met with public indignation. "Do they think we are animals?" was the most frequent response to these appeals.

Of course, the simple answer to this question is that *we are* animals. The human body is an animal body. It needs the same things and it operates according to the same laws. It is true enough that the digestive apparatus of different animals differs in detail. Both horses and cattle, for example, are capable of handling much larger quantities of woody material than is the human animal. Nevertheless, the basic needs for flesh-building foods (proteins), for foods supplying fuel and energy (carbohydrates), water, minerals and those health promoting substances called vitamins, is the same for man as for the "lower" animals. Fresh green grass has a high content of protein of high feeding value and is a rich source of vitamin A (in the form of pro-vitamin A or carotene), B₁ (thiamin), C, G (riboflavin), K and the as yet unidentified "grass-juice" factor. It is also an excellent source of the minerals, calcium, phosphorous and iron. However, man, who claims for himself the distinction of being the only animal endowed with reason and intelligence, insists, because of prejudice, on leaving to animals some of the most nutritious and health giving of food substances. Once again the animals have the best of it!

Recent investigations have shown that tender, rapidly

growing pasture herbage from most plants found in good pastures, containing about 25 per cent of clover, is a high-protein and highly nutritious feed for livestock. As far as cattle are concerned, it should be noted that vitamin C, while very important for the human species and known to be essential for monkeys and guinea-pigs, is not essential in the diet for this class of stock. In addition, vitamin K is probably not needed for cattle except in special cases, being "manufactured", together with the so-called "B-Complex", in the rumen of these animals.

Pasture herbage, in the stage referred to, supplements all the ordinary requirements of livestock, excepting iodine in iodine deficient areas, and of course, common salt. High producing cows, however, require supplementary grain feeding for peak production, since cattle, on pasture alone, can only eat enough to produce 40 pounds of milk per day.

Fresh, immature grass or grass products seem to have a special value in poultry feeding, growth in poultry and hatchability in the eggs being favourably affected. Succulent

grass pasture has a high economic value for growing poultry, since general grain consumption is markedly reduced.

Young Grass is Best

What has been said regarding the nutritive value of young grass and other herbages, and particularly insofar as vitamin content is concerned, does not apply to the same plants after the seed

GRASS

Grass is the forgiveness of Nature — her constant benediction. Fields trampled with battle, saturated with blood, torn with the ruts of cannon, grow green again with grass, and carnage is forgotten. Streets abandoned by traffic become grass-grown, like rural lanes, and are obliterated. Forests decay, harvests perish, flowers vanish, but grass is immortal. Beleaguered by the sullen hosts of winter it withdraws into the impregnable fortress of its subterranean vitality and emerges upon the solicitation of spring. Sown by the winds, by wandering birds, propagated by the subtle horticulture of the elements which are its ministers and servants, it softens the rude outline of the world.

JOHN JAMES INGALLS.

stalk appears. The farmer who boasted of his pasture because his neighbour told him "the cows were in the meadow" was really receiving a reproach instead of a compliment. What he really was feeding the cows was hay, even if it was still standing. For ungrazed material allowed to mature is of very low feed value indeed, and this loss of feeding value as the grass matures is exaggerated by its decrease in digestibility. It has been shown, for example, that from the time the grass is in the immature herbage stage until it fully matures, its protein content drops from 20 per cent to 3 or 4 per cent. Furthermore, while the digestibility of the dry matter of early spring grass may be as high as 80 per cent, herbage from the same field grazed in mid-summer shows a digestibility of about 65 per cent. Therefore, the policy of light spring grazing is really poor economy and pastures should be properly grazed (though not over-grazed) to maintain them in best condition.

The use of grass silage is one method of preserving the high feeding value of immature grasses, so that it can be used for cattle during winter. One of the special features of immature grass is that it is rich in carotene, the substance which is manufactured into vitamin A in the liver of the animal—the same vitamin that we obtain "ready-made" in cold-liver oil. This factor is important in the quality of milk produced, the thrift of the calf to come and the health of the cow herself. In order that the carotene be preserved, it is necessary that a certain degree of acidity be rapidly developed in the silo, and this is secured directly by adding acid, for example, hydrochloric or phosphoric, or indirectly by adding molasses, from which acid is developed by fermentation. Lack of carotene in the dairy cow ration results in the production of milk which has a low content of vitamin A. It has been shown that calf-scours are frequently the result of a low vitamin A content of the first milk after calving. It is especially important that the colostrum be high in vitamin A, if digestive disturbances with calves are to be avoided.

"Powdered" Grass

There is still another way in which the nutritive value of various species of grasses is utilized for animal or human food. For this process grasses and cereals, such as wheat, oats and barley, are cut in the vegetative stage and specially prepared as a concentrated food in powdered or tablet form. Analysis has shown that such products retain the values of the fresh grass and are particularly valuable as a source of important vitamins and minerals. Commercial interests have now entered this field, producing material for live stock, poultry or human food. Various products are now on the market in Britain. In the United States, in addition to stock food products, a bread containing grass powder is being produced.

Thus, after the lapse of twenty-five centuries, nutritionists have been able to explain the old King's queer behaviour on sound scientific and practical grounds. They may even find in his miraculous recovery, following the adoption of his novel diet, evidence of the peculiar virtues of fresh, green grass.

UNJOINTED CEREAL GRASSES HOLD THE SOLUTION TO CHICK RAISING PROBLEMS

• In young blades of wheat, oats, barley and rye Mother Nature has tucked away abundant supplies of vitamins. By a patented process Cerogras (unjointed cereal grasses) preserves these vitamins at their highest potency and makes them available to you in most of the popular brands of feeds. Even though your chicks are outside now, feed them mashes containing genuine Cerogras and assure their rapid, vigorous growth into profitable layers.

WHAT CEROGRAS DOES FOR CHICKS

- Produces bright yellow shanks and beaks.
- Helps build bright eyed "singing" chicks.
- Produces splendid feather bloom and lustre.
- Builds stronger, better growing broilers with distinctive flavour.
- Decidedly reduces chick mortality and builds up vitamin reserve.

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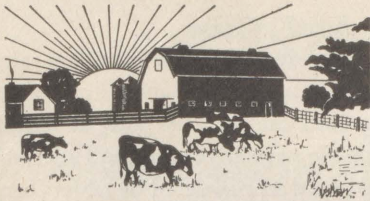
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AGRICULTURE

Articles on problems of the farm

Go Ahead, Mr. Farmer 1942 Programme Requires All Out Production

by L. H. Hamilton

IT IS now possible to develop an extensive programme for agriculture," stated Dr. G. H. S. Barton, Deputy Minister of Agriculture, at a meeting held in Ottawa recently. Until this year, our problem has been one of adjusting our efforts to meet special requirements. These have changed often, due to the changes in the war situation. Now we know something of what our export requirements will be and this along with our domestic demands will tax our ability to its capacity. In facing this problem, many difficulties are anticipated, but war is a series of difficulties affecting agriculture no less than other lines.

For the farmer, this is encouraging news. He is no longer a "spare tire" but an important spoke in the wheel. Stabilized prices and assured markets have already shown what can be accomplished. Our dairy production has increased greatly. This is particularly true in Quebec. Hog production continues on the up and up. Our quota of six million pounds for export will be met. Poultry production is expanding rapidly. Eggs are dried and shipped in ever increasing quantity and the market for meat only awaits the supply. Other lines of farm produce are in demand.

More wool is required for 1943: eight million pounds. As has been announced through this Journal previously, sheep men will be asked to produce more wool. Due to difficulties experienced in shipping, our normal imports of wool are no longer normal and every effort must be made to fill the gap. Eight million pounds seems like a lot of wool. It means approximately one million more sheep must be retained on our farms this year. It means that those districts in Canada which are now raising sheep must increase their production by 25 to 30 percent. There is little doubt but that this can and will be accomplished. In Eastern Canada, this means only four or five extra ewes in each flock. Perhaps many previous owners and breeders will assist by getting back in the business. *This is a war effort requiring the assistance of everyone.* The details of how this will be accomplished are not available as yet. They are of secondary importance, however. Our main thought and effort must be directed towards finding ways and means of doing something ourselves. One thing every sheep farmer can do at present is to make sure he gets every ounce of wool from his sheep and that this wool is properly handled and shipped. Due to war needs, we are at present only producing approximately 15 percent of our requirements. To meet this situation, certain restrictive orders cutting down civilian use to 40 percent of normal have been passed. Possible substitutes have been studied

with some success. Other steps may be taken as the occasion demands.

With this great increase in production (and this applies not only to agriculture) many new and complex problems have arisen. This is but natural. Some can and will be solved, others may remain. For the farmer, the question of labour and machinery, transportation and marketing may become more important and difficult. In view of this situation, it is possible that some choice will have to be made between needed essentials.

Every effort is being made to avoid restrictions, but, while food may win the war and write the peace, the instruments of war must continue to multiply. We know now that there are possible limitations in the production of needed essentials. These limits are determined primarily by the supply of raw materials available and secondarily by our ability to organize and produce. For instance, our supply of steel is limited, and, if the production of farm machinery is reduced or stopped, it is because steel is more essential elsewhere. In view of these circumstances, everyone must cooperate to reduce the demand for new machines and parts as much as possible. Old machines can quite often be repaired to serve a longer period with little inconvenience; better care can be given new machines. All machinery can be kept in a high state of repair by more thorough planning.

Meeting the demands placed upon agriculture is a big job; the biggest we have yet experienced. The farmer will have many problems to solve. The situation demands whole-hearted cooperation and effort. There is little doubt but that it will be forthcoming. **Production now** is our programme for 1942.



This number of ewes added to every farmer's flock will ensure the extra eight million pounds of wool needed for 1943.



YOUR SCRAP RUBBER

is now a vital war material

Enemy action in the Far East has caused such an acute shortage of rubber that our whole war effort is in serious danger. Canada and her Allies *must* have rubber, *quickly*, for the armed forces, for factories, for ships. The Japanese control our source of crude rubber imports—the *only* other quickly available supply is old scrap rubber, which can be reclaimed. Every citizen in Canada must do his part in collecting all the scrap rubber in the country and turning it over to the Government for war purposes. Here is how to do it.

THIS IS AN URGENT APPEAL FOR YOUR HELP

Question: Is the rubber situation really serious?

Answer: The shortage of rubber is so grave that any citizen hoarding rubber or using it unnecessarily is committing an act of disloyalty. It is now illegal to destroy any rubber article.

Question: Of what use is reclaimed rubber?

Answer: Old rubber is processed so that the rubber content is reclaimed. This reclaimed rubber is used in the manufacture of essential articles for our war effort, thus replacing crude rubber.

Question: How much scrap rubber is needed?

Answer: Fifty Million Pounds. This is a large quantity, but it **MUST** be found. Every old piece of rubber in Canada, no matter how small, is needed, **QUICKLY**.

Question: Should I turn in any *usable* rubber articles as well as worn out ones?

Answer: Absolutely not! By no means discard anything that is still useful and that might have to be replaced. On the other hand, rubber tires used as boat bumpers, swings, etc., *should* be turned in for war uses.

Question: What kind of scrap rubber is needed?

Answer: Every all-rubber or part-rubber article must be salvaged. Here are a few of the articles you must turn in:

Old Tires of every kind Rubbers
Old Inner Tubes Overshoes
Rubber Boots, Hats, Coats, Aprons, Pants,
Gloves, Tubing, Matting, Toys
Sport Shoes (crepe soles are especially good)
Garden Hose Hot Water Bottles Stair Treads
Bathing Caps and many other articles

Question: What happens to the scrap rubber collected?

Answer: The scrap is sorted, baled and assembled into carload lots and is then purchased by the Government at fixed prices throughout Canada. The Government pays forwarding transportation charges on these carload lots, and is responsible for their allocation. You may be sure that every pound will be used directly or indirectly in the war effort.

Question: How do I go about saving scrap rubber?

Answer: Start hunting for it **TODAY**. Clean out your cellars, attics, garages and sheds right away. You will find more rubber articles than you expect. Start them all on their way to the battlefield.

HOW DO I TURN IN MY SCRAP RUBBER?

The school boys and girls of Canada are being organized, through the school authorities, to act as Official Collectors of Scrap Rubber. The school nearest you is, therefore, your best Collection Depot. You may dispose of your scrap rubber in any one of the following four ways:

1. Give it to the children for their school collection.
2. Give it to your local National Salvage Committee.
3. Leave it with any Service Station or Tire Dealer where you see the sign; "Voluntary Scrap Rubber Receiving Depot."
4. Sell it to a junk collector.

When you gather up your scrap rubber and dispose of it by one of these methods, it will be used by the Government for Canada's War Effort. Do it NOW!

Department of Munitions and Supply
SCRAP RUBBER DIVISION ROYAL BANK BUILDING, TORONTO

*This advertisement is issued in co-operation with
The National Salvage Campaign, Department of National War Services*

New Prices of Dairy Products

by J. E. Lattimer

AN EXTRA number of the Canada Gazette of April 25, 1942 announces the new regulations of prices of dairy products. Prices of other dairy products are based on the price of cheese. The new cheese price is therefore the first point to be considered.

The New Cheese Contract

For the year commencing April 1, 1942 and running to March 31, 1943, Canada has agreed to supply a minimum of 125,000,000 pounds of cheese to Britain. If shipping space is available more may be taken. This amount is 13,000,000 more than was provided during the previous year. The price agreed on is 20 cents per pound for the top grade, half a cent per pound less for the second grade and one cent per pound less for the third grade. This price including the provincial bonuses and the federal premium in quality bring the maximum to 24 cents per pound for the top grade. The range is as follows:

Maximum Cheese Price

First grade 94 score	24	cents
First grade 93 score	23	"
First grade 92 score	22	"
Second grade 87-91 score	21½	"
Third grade under 87 score	21	"

The effective price is about 23 cents per pound. This is about 4 cents per pound above that of the previous year.

Concentrated Milk Products

Condensed milk is also required in considerable quantity overseas. It is not the aim to arrange a price that will attract milk from cheese production to that of condensed milk. A normal relationship between the price of milk for condenseries is 15 cents per hundred weight above that of cheese milk. Therefore, a higher price is necessary for milk for condenseries than prevailed last season. Retail prices prevailing when the ceiling was established were the result of last season's prices. The new prices permit some advance over the previously allowed. The maximum manufacturer's price per 48-tin case of 16 oz. tins of evaporated milk shall be —

Maritime provinces	\$4.10
Quebec and Ontario except northern areas	4.10
Northern areas Quebec and Ontario	4.20
Manitoba and West	4.20

Similar sectional differences are provided for in the specified prices outlined for the various products of condenseries.

Butter Prices

While cheese production and also the production of condenseries are confined to definite districts the production of butter covers almost the entire country. Some 70 per cent of the annual output of butter is made in the five months from June to October. This requires considerable storing for the winter season. While all provinces are

interested to a greater or lesser degree in butter production there is considerable inter-provincial trade. The three provinces of Manitoba, Saskatchewan and Alberta are surplus areas of butter production. The surplus from the prairies is consumed in British Columbia and some of the eastern provinces. Maximum prices are as follows:

Maximum Wholesale Butter Price

	Quebec City Montreal Toronto Vancouver	Manitoba Saskatchewan and Alberta
	cents per lb.	
May to October	35	35¼
November	35¾	34
December	36½	34¾
January (1943)	37¾	35½
February	38	36¼
March and April	38½	36¾

These new prices provide for increases in wholesale prices varying from ¾ of a cent per lb. in November to 3½ cents in March and April. The increase in retail price varies from 1 cent per lb. in November to 4 cents in March and April 1943.

Variations in price of butter in different parts of the country is a recognition of deficit and surplus areas in this product and is an allowance for transportation. The higher price for condensed milk in the west is for the same reason. Both are deemed necessary on account of established sections of production. The same variation may be noted in connection with the prices of milk for human consumption in fluid form which is still more susceptible to local influences.

Fluid Milk Prices

Milk for consumption in fluid form must be produced comparatively near the market and in regular quantities throughout the year. In this it differs from other dairy products. Fluid milk prices have been regulated by provincial or local agencies for years. It has generally been customary to have a summer and a winter price. Prior to the establishment of the ceiling, some agencies had arranged a winter price while some had not. The Board allowed a bonus of 30 cents per hundred weight where prices had not been raised after August 1, 1942. This enabled retail prices to remain under the ceiling established. At the same time a bonus of 40 cents per hundred weight was paid for milk for condenseries. Now all bonuses are withdrawn. Maximum retail prices are established at principal markets in 16 different areas. Provincial agencies are responsible for regulation of prices in minor markets with concurrence of the Board. In special sections, mostly newer northern areas where prices are high, the maximum price is that ruling on April 1, 1942. The following zones and prices are announced.

Retail Milk Prices

Area	Principal Markets	Maximum Price in principal markets	Maximum Price outside of prin- cipal markets
		Cents per Qt.	Cents per Qt.
1 P.E.I.	Charlottetown	11.0	11.0
2 N.S.	Sydney	13.0	12.0
	Halifax	12.0	
3 N.B.	St. John	13.0	12.0
	Fredericton	12.0	
	Campbellton	13.0	
4 Que.	Quebec City	12.0	12.0
5	Three Rivers	11.0	11.0
6	Montreal	12.0	12.0
7	Sherbrooke	11.0	11.0
8	Hull	12.0	12.0
9	(No central market named)		14.0
10 Ont.	Toronto	13.0	12.0
	Hamilton	12.5	
	Windsor	13.0	
11	(No central market named)		13.0
12 Man.	Winnipeg	12.0	12.0
13 Sask.	Regina	12.0	12.0
	Saskatoon	12.0	
	Moose Jaw	12.0	
14 Alta.	Edmonton	12.0	12.0
	Calgary	12.0	
	Lethbridge	12.0	
15 B.C.	Vancouver	11.0	11.0
16	Outside Vancouver Area		16.0

Quebec province is divided into six areas. For the 25 counties in the vicinity of Quebec city, the 20 counties of the Montreal area and the 4 counties in the Hull area, the maximum price is 12 cents. In the Three Rivers area of 7 counties and Sherbrooke area of 11 counties, the maximum price is 11 cents. For the northern areas of the province, the maximum is 14 cents.

Exceptions are also permitted in areas 9 in Quebec, 11 in Ontario and 12, 13 and 14 for inaccessible markets where maximum prices prevailing on April 1, 1942 were in excess of above prices. In such cases maximum prices shall be those prevailing on April 1, 1942.

The new prices for fluid milk in Quebec province will be very similar to those prevailing last season. With higher prices for cheese milk, milk for condenseries and for butter, there will be less milk pressing on the fluid market. If too much milk is diverted away from the fluid market to other uses, revision of prices may be necessary. The announcement is that further revision will be necessary in the case of fluid milk before a winter price is established.

What is Inflation?

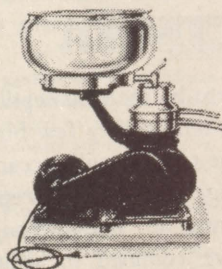
One of the best definitions of inflation is this: *Issuing of currency for which there is no corresponding amount of goods.*



Narvo is a marvellous finish, combining the best features of paint enamel and varnish. Try it . . . it flows freely, dries quickly and covers in one coat. Wide range of beautiful colours.

**THE MURPHY COMPANY
LIMITED**

Made by the makers of MURPHY PAINTS

DE LAVAL JUNIOR
SEPARATORS

Motor Drives

All De Laval Junior Separators except the No. 1 size can be equipped with simple, rugged V-belt electric motor drive.

Made in five sizes. Provide the small herd owner with De Laval quality separating at lower price and in the range of capacities that meet his exact requirements. They should not be compared with other low priced separators for they offer many advantages not found in any other smaller separators. Every De Laval Separator regardless of capacity or price provides De Laval skimming efficiency, quality and long life.

The high or low stand of the No. 6 De Laval Junior is a part of the machine. The smaller sizes are built for table use or with high or low stand and pail shelf as an extra with Nos. 2, 3, 4 sizes; all except the No. 1 size may be furnished with electric motor drive.

THE DE LAVAL COMPANY LIMITED
PETERBOROUGH, ONT. MONTREAL, QUE.

Leucosis or "Big Liver Disease" of Chickens

by Veterinarius

L EUCOSIS is now recognized as a "disease complex" which includes several types of a serious disease of chickens. One type commonly seen in the eastern provinces is characterized by a greatly enlarged and abnormally coloured liver. Another common type is known as "grey eye"; this is technically classed as ocular leucosis. Both types are closely related to the nervous form, known as "range paralysis", but they differ in their effect upon the victim.

Leucosis is an infectious disease; in some flocks it spreads rapidly, while in others it affects relatively few birds. There is no cure for affected fowls and no direct means of immunizing flocks against the disease, so poultry owners, and particularly those that are enlarging their flocks in view of rising prices of poultry products, must pay particular attention to measures of prevention against this and other infectious diseases.

The cause of the disease is, according to most workers, a filterable virus, an organism so small that it cannot be seen even under a powerful microscope and is able to pass through fine porcelain filters. It has been shown to have been brought into flocks in at least three common ways; in eggs purchased for hatching, in purchased pullets and in purchased baby chicks. It can be spread by direct contact between infected and healthy birds that are penned together. The droppings and nasal discharges can act as means of passing the infection from bird to bird. One investigator has indicated that mites may play an important role in transmission.

The virus is not easily destroyed and is able to resist a fair degree of dryness and cold for some considerable time. It is evident that contaminated water and feed are the important means of spreading the disease.

Some strains of chickens appear to be more susceptible than others. In some exposed flocks only a very few birds will be affected while in others a large number will succumb over a period of a few weeks. The age of greatest susceptibility is between five and six months of age, although losses in older birds, after they are confined in winter quarters, are common.

Symptoms

(A) "*Big Liver*" Type. Some time after the onset of the disease the comb becomes pale in colour and feels cold and lifeless. The bird becomes listless and rapidly loses weight even though the appetite may remain fairly good. The later symptoms are extreme weakness, inability to stand and continually closed eyes. Death invariably follows, although some birds will linger on for many days. On opening a dead bird the liver and spleen are found to be

enormously enlarged. The liver may be yellow or pink in colour and is soft and flabby; small brown or grey patches are usually found on its surface.

(B) "*Grey Eye*" type. The red portion of the eye becomes grey in colour. Generally both eyes are affected, the greying process extending to all parts of the membranes. If this type is not complicated by other forms of leucosis it may not cause deaths; however, affected birds must be considered as dangers to the rest of the flock.

(C) The nervous form is characterized by a paralysis of legs, wings and neck. It may develop rapidly or slowly.

Control Measures

When leucosis in any form is suspected all sick birds should be removed from the flock immediately, and as soon as it is certain that this disease is present all affected birds should be killed and burned. The next step is to remove all possible sources of infection; clean and disinfect the poultry houses, paying particular attention to water vessels and feed hoppers. Eliminate mites as possible carriers.

In the common forms of the disease there are good hopes that losses may be small, *if an energetic and thorough campaign of sanitation is undertaken promptly*. On most farms a rigid culling programme will keep down losses. All birds with faded grey eyes, pale combs, signs of lameness or paralysis, and those that are very light in weight must be taken out of the flock. Continuous culling, through general observations of the above symptoms, is strongly recommended as preferable to periodic culling in order to eliminate carriers and develop a resistant strain of stock.

If, in extreme cases, all the birds have to be destroyed, the process of rebuilding must be done cautiously, after well cleaned utensils, building and, if possible, a new range has been provided. It must be remembered that the new stock might be very susceptible to the disease, so if an owner cannot be sure of his sanitary measures it would be better to rebuild from the birds remaining in the old flock.

This infection, in common with other infectious and contagious diseases, can spread only after it has been introduced into a flock. When it is necessary to buy new stock the purchaser must use his best judgment in selecting its source. Eggs for hatching baby chicks, pullets and roosters should be bought only from farms that are known to be free of infectious diseases. Long established and well known plants have gained good reputations by keeping diseases down to a minimum, and stock from such sources can usually be purchased with confidence.

The main points are not to allow the entrance of the disease, but if it does enter a flock then there should be no delay in starting stringent control measures.

CONSERVE MILK CANS

The prospects of getting tin and sheet iron for the manufacture of milk cans is very poor, according to Mr. W. J. Bird, Dairy Superintendent for Nova Scotia. On his return from a conference at Ottawa Mr. Bird stated that he was more convinced than ever that the best use possible should be made of the present supply of cans. He said he was making his utmost to get the necessary materials but there was a shortage all over Canada, and when present stocks were exhausted he could not say what would happen. The mills are piled high with war orders, and war materials have the priority. The manufacture of milk cans, he stated, has been reduced to two sizes, 25-pound and 40-pound.

Another curtailment that looms before the dairyman is that of milk and cream collections. No official orders have been issued as yet, but marked restrictions are expected including the elimination of all duplications in truck collections and the possibility that producers may have to do their own trucking to the main highways.

FLAX FOR OIL

With Canadian vegetable oil importations of over 200,000,000 pounds cut off by the war in the Pacific, Ontario farmers have responded to the request of the government to increase plantings of Soy Beans, a source of much needed vegetable oil, and while actual figures are not obtainable at the moment, it is known that soy bean acreages in some localities have more than doubled. Ont. Dept. of Agriculture officials state there are areas however that although not so favorable for soy beans, are suitable to the growing of oil flax — an entirely different proposition from the growing of fibre flax.

According to officials of the Eastern Division of the Canadian Wheat Board, flax is one of the most suitable oil sources and one to which farmers can turn with a minimum of delay. The Board has been given sole power to buy all flaxseed of the 1942 crop. It is the intention of the Board to establish appropriate prices for eastern grown flaxseed in relation to the No. 1 Canada Western flaxseed price of \$2.25 per bushel but taking due account of quality, oil content and other factors. Adequate handling arrangements at country points will also be made.



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CO-OPERATION AND MARKETING

A page of interest to members of farmers' co-operatives

TEACHERS AND CLERGY START CO-OP STORE

The leaders who started the flourishing Co-operative Society in Dartmouth, Nova Scotia, are those who might be expected to endorse co-operation in any town — the clergy and the school teachers. Those two groups in Dartmouth have demonstrated the ease with which people of intelligence and position can create interest in and gain support for the co-operative movement. No other Society in the Maritime Provinces has grown so strong in so short a time.

Six Months — 300 Members

Opening its doors last October, the Dartmouth Co-operative Store (groceries) now has more than three hundred members and a paid-up capital of over \$7,000. Weekly business has reached the \$1,500 mark and is going upward, and at the coming semi-annual meeting, the directors will announce a substantial surplus.

After first forming a study group themselves, the Dartmouth clergy and teachers called in other people and helped to start other groups. So to-day the Society represents, as it should, a cross section of the community.

Although some of the members are active as directors or officers of the Consumers' Society, the original Clergy-Teachers Study Group is still meeting once a week. They are at present going into the possibilities of co-operative hospitalization.

FLAX PRODUCERS CO-OPERATE

A successful new co-operative is the Flax Producers Co-operative of Bois Franc. Organized in 1940, it now has 115 members in four parishes in the Plessisville district. Their first crop, in 1941, on 400 arpents yielded an average of one ton per arpent, which after processing gave 100 pounds of long fibre and 165 pounds of tow per arpent — a very good average yield. The crop was handled by the Plessisville Flax School on a cost plus basis for treatment, and was sold co-operatively.

L. Marcou is the president and Maurice Brassard, a graduate of the Flax School, is secretary.

MARKET COMMENTS

The beef scarcity is now front page news. A combination of factors is responsible. Many of them have become familiar. Some appear to have been overlooked. Among the latter are the gradual shifting from beef to dairy production in the cattle industry, particularly in the older eastern provinces where the chief market is. The shift of beef raising from eastern to western Canada is not surprising as beef is generally considered a pioneer crop requiring wide areas. Under conditions that sometimes prevail, western cattle are brought east for winter feeding. They are then near the markets. This movement varies from year to year dependent on the amount of feed available in the east. Last season's drought failed to supply the impetus this movement requires. Present conditions promote the movement of cattle across the line from Winnipeg to meet the attractive prices of St. Paul, Minnesota.

The ceiling on prices does not apply to farm products for export. It is a simple matter for export markets to drain the domestic market. This is particularly easy when ceiling prices on beef are established in the fall of the year when the price is for summer grass fed cattle coming to market. October is the high month in cattle slaughtering. May and June are usually the low months. The reasons are fairly obvious. Sometimes when beef is scarce pork may be used as a substitute. At present they are both expensive, as the market trend indicates.

An embargo on exports, similar to that now prevailing on hogs, has been discussed. In view of the frantic efforts

made in the past to secure a market for export of beef, such a proposal would be very shortsighted. In the meantime, more regular weekly contributions to the export quota than have taken place during the month of April, 1942 might relieve the situation. Further expansion of beef production in eastern Canada would also appear warranted.

Trend of prices

	April 1941	March 1942	April 1942
LIVE STOCK:	(\$)	(\$)	(\$)
Steers, good, per cwt.....	9.25	10.40	10.20
Cows, good, per cwt.....	6.60	7.85	8.00
Cows, common, per cwt.....	4.70	6.00	6.00
Canners and cutters, per cwt.	3.90	5.15	5.10
Veal, good and choice, per cwt.	8.45	12.65	12.15
Lambs, good, per cwt.	10.20	—	8.50*
Lambs, common, per cwt....	7.00	10.40	5.60*
Bacon hogs, dressed, B.1, per cwt.	11.70	15.42	15.33
ANIMAL PRODUCTS:			
Butter, per lb.	0.31½	0.35½	0.35
Cheese, per lb.	0.18	0.25	0.23
Eggs, grade A, large, per doz.	0.22	0.31½	0.30
Chickens, live, 5 lb. plus per lb.	0.20	0.24½	0.26
Chickens, dressed, milk fed, A, per lb.	0.28	0.27½	0.28
FRUITS AND VEGETABLES:			
Apples, B.C. McIntosh, extra fancy, per box	1.80	3.25-3.50	2.95
B.C. Winesaps, per box	—	—	1.60
per 75 lb. bag	0.55	1.60	1.60
FEED:			
Bran, per ton	26.00	29.00	29.00
Oil meal, per ton	(32%) 33.00	(38%) 44.00	(38%) 44.00
* Per head.			

CO-OP FILM

"Here is Tomorrow," is the title of the first sound motion picture of consumer co-operatives in America.

This is a dramatized documentary film showing how two million American neighbours have gone into business for themselves, and have solved many of their own economic problems without help from either government or philanthropy.

The movie is a beautifully photographed account of the accomplishments of ordinary consumers who have built their own stores and service stations, farm supply depots, warehouses, insurance companies, hatcheries, factories, mills, refineries and oil wells. It tells how neighbours, preserving the American traditions of self reliance, democracy and mutual aid have built, here and now, a sample of the future.

The film had its world premier showing in New York in January.

(From C. League News Service.)

PROFIT OR CO-OP METHOD?

"As a result of their experience in building and operating the world's first co-operative oil refinery, Saskatchewan co-operators can produce definite figures from one field of distribution with which to uphold their case. According to figures published by the Public Affairs Committee in the United States, when the consumer spends a dollar for gasoline, 45c. of that dollar go to cover the cost of pro-

duction, and 55c. are consumed by the cost of distribution. Since no Canadian figures are available, it is fair to take these figures as applicable to this country also. In other words, under the competitive profit method of doing business, it costs more to distribute the gasoline than it does to make it.

"When a Saskatchewan consumer spends one dollar for gasoline purchased at his local co-op and manufactured by the Consumer's Co-operative Refineries, 63c. of that dollar are taken up by the cost of production, and only 13c. go to cover the cost of distribution. In this case, approximately five times as much of the consumer's dollar goes for production cost as goes for the cost of distribution. Of the remaining 24c. of the co-operatively-spent dollar, 21c. are returned to the consumer in the form of patronage dividends, and 3c. are placed in a reserve.

The fifteen year old Manitoba Co-operative Wholesale joined the ranks of million dollar co-ops at the close of 1941 when its gross sales for the year totalled \$1,063,000. The membership is now 54 local associations, with a total of 8,354 members — an increase of 1,874 over last year.

38 of the affiliated members doing business with the wholesale showed marked increases in business, 6 showed decreases. Comparative figures were not available for the others who did business with the wholesale for the first time.

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• Restrictions of the Steel Controller make it possible to supply only a limited quantity of "Council Standard" Galvanized Roofing. But ... so long as Council Standard is available *the quality will be maintained 100%.*

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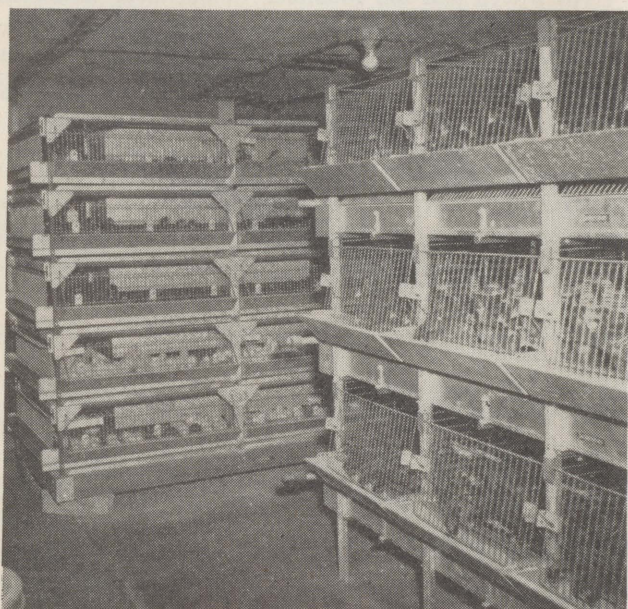
Merits Your Confidence—Good for a Lifetime

EARLY CHICK GROWTH

by W. A. Maw

Giving the chicks the proper start in growth is essential to economic returns at a later age when, as cockerels, they are disposed of as meat, or when as pullets they are expected to produce eggs at a heavy rate.

Comfort or the proper brooding temperature is the first essential. Cleanliness and freedom from draughts in the house and clean food and water are, of necessity, further basic essentials. Whether chicks are to be brooded in the colony house under a coal-burning, oil-burning or electric hover, the heat required is the same — 95 degrees Fahrenheit at the floor level where the chicks settle down to sleep. If batteries are used, the same temperatures are necessary.



Starting and growing batteries. Battery brooding provides optimum conditions for starting chicks. The complete starting ration however, is essential to normal growth.

The type of ration fed to baby chicks is very important. First of all, it must be properly balanced or complete in nutrients necessary for normal growth. The most economical practice is to feed an all-mash starter ration for the first seven to eight weeks, after which time scratch grain

The War Time Series pamphlet No. 45 "Control of Insects and Diseases in the Vegetable Garden" contains lists of insects and diseases attacking vegetables. The list of insects contains the names of the insects and of the plants attacked, together with description of the insects and of the types of injury, control recommendations for both Eastern and Western Canada, recommended formulae for the poisons, and dilution tables. Pamphlet No. 45 may be obtained free by writing to the Publicity and Extension Division, Dominion Department of Agriculture, Ottawa.



Brooding accommodation must provide ample floor space and hopper feeding space. Teach the chicks to roost at four weeks of age.

can be fed. It is advisable to feed the mash ration in open hoppers at all times.

As soon as the chicks are eight to ten weeks of age the growing mash may be introduced. This mash is lower in protein and generally cheaper in price and is fed for the balance of the growing period, while the stock is on the range.

The type of range used for growing chickens has a direct effect upon the amount of grain feeds necessary for growth. A good grass, alfalfa or cereal pasture will reduce grain feed consumption by at least 25 per cent. Where cereal grasses are used, it is necessary to sow new plots periodically, whereas the grass or alfalfa pasture should be cut if not completely handled by the chickens. The usual practice is to cut for hay and then give the chickens ample range to cover, about two hundred chickens per acre, and they will keep it clipped short to provide continual new growth.

Such other crops as rape and kale may also be used to good advantage for pasturage.

Ample clean fresh pasture with the proper growing ration fed in hoppers and fresh water at all times will ensure healthy stock. While on range the stock needs very little shelter, the simple range house being sufficient.

Feed affects the quality of eggs. While flavour cannot be detected by candling, the lack of flavour will reduce the consumption of eggs more rapidly than any other factor.

Even without seed, any small piece of dodder carried from an infected to a clean field may coil round a new plant and start an infestation. Clothing, boots, implements, and machinery may spread dodder seeds or fragments of stem into clean fields.



DEPARTMENT OF AGRICULTURE

Activities, Plans and Policies of the Quebec

Department of Agriculture

PROVINCIAL FLAX SCHOOL BUILDS AN INDUSTRY



Mr. E. L. Renauld, Director.

Using buildings made available at an extremely low figure by the Plessisville Foundry, the Provincial Department of Agriculture has established an institution which in two short years has made a notable contribution to the life of the province. Into its creation has gone the skill of Foundry engineers; the far-sighted enterprise and capable direction of department officials, the energy of hundreds of farmers and the eagerness of trained youth.

And the idea has caught on. For where only one flax mill was two years ago there are now eight, — three established in 1940 at St. Martine, Louiseville and Yamachiche, and five in 1941 at St. Francois de Salles, St. John, Gentilly in Nicolet County, La Baie du Fèvre, and Montmagny.

Begun in 1940

It was the promise of a large crop on 4000 acres sown to flax in 1940 that persuaded the provincial government that something had to be done to provide skilled workers. To André Auger, chief of the Field Husbandry Division goes much of the credit for initiating the venture. The plan for a school was drawn up and quiet-spoken Ernest Leopold Raynauld was chosen as Director. With the help of money from the Dominion-Provincial Youth Training Plan 42 young men enrolled as students and the course began in the most practical way with students and teachers working together in the flax fields.

The choice of director was fortunate. Mr. Raynauld knows flax. He began to work in it in 1921 on Dominion Government experimental farms. When, in 1932, the provincial government brought over the first flax expert from Belgium, Raynauld, then agronome in Soulanges County, was chosen to accompany the expert in his inspections. Flax has been his big interest ever since.

The Director impresses one also as a teacher. His plan of having the students spend the first two months of the season in the field, of giving instruction in general agricul-

ture as well as in flax culture, of dividing the students into two groups which alternate half-days during the winter months between the mill and the classroom is a plan that seems to embody understanding of the best methods of learning.

Practical Course

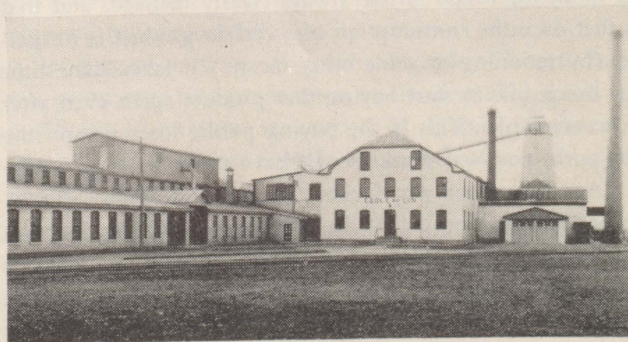
In the field the students learn when the flax is ripe and how to pull it, how long it should be left to cure and how it should be gathered. The school does not own a farm of its own yet but it rents 20 acres for flax growing. Students also visit and work in other fields in the district. They learn how to control "dodder" in flax by proper rotation and how to clean up fields seriously affected.

In the mill, they learn to handle the ingenious machines which save and clean the seed, clean, break and "scutch" the fibre. They learn how to grade and bale the long fibre and clean the "tow".

Improved Machinery

The improved machinery is one of the achievements in this school. The Turbo "Scutcher", which handles the long fibre was copied from the machine originally invented by the Belgian, M. Sonnens, but it has been greatly improved and altered through the joint efforts of the officials of the school and the engineers of the Plessisville Foundry who made it. The tow "scutcher" which handles the short fibre, operates on a different principle from the original Sonnens machine and is a great improvement.

In fact, "improvement" and change are constant in this progressive place. New and better installations are now under way. A fine new carding machine, imported from England, has just been added to the equipment and will shortly be in operation. Expansions are contemplated which will include spinning and weaving. Experiments in com-



The Plessisville flax school.

binning wool and tow are being watched. Before long the crop which now is sent to Great Britain and the United States for weaving may be made into fabric on a large scale in our own province.

While the school operates only in the winter the mill is in continuous operation and employs 35 people. In 1940, 1100 tons of flax were worked, bought from all over the province. The 1941 crop was smaller and came chiefly from Megantic, Lake St. John and Lotbiniere.

The school staff is busy spring and summer giving short courses to members of the co-operative and teaching better methods of growing and preparing the flax. The summer is the time also for field experiments in fertilizer, — 3 fields being operated, one each at Plessisville, St. Martine, and Yamachiche.

The programme for 1942 will be one of consolidation of gains already made. War conditions may postpone additions to the plant now due and the shortage of labour will likely prevent the expansion that might logically be expected — but a fine beginning has been made and the results will not be lost.

\$20.00 Buys a Brood Sow

Good bacon-type sows are being offered farmers by the Department at the attractive price of \$20.00 each. These sows are young, may be bred immediately, and the price includes delivery to the nearest station or the nearest town.

Since the object of this policy of assistance is to increase the number of fall litters, the offer will be withdrawn very shortly, so anyone wishing to get one or more of these animals is advised to get in touch with his agronomer as soon as possible. The agronomer will look after all details, but cash must accompany the order.

The purpose of this policy is, of course, to increase the production of pork in Quebec, and help supply the bacon needed for shipment to Britain. We are committed to send 600 million pounds of bacon and other pork products overseas in 1942, but there is also the home market to be supplied, which it is estimated will absorb another 300 million pounds.

Our production of hogs must be increased if we do not want to have pork rationed in Canada. And rationing has an influence which is not always clearly realized, and that is that once the consumption of a certain product is restricted (by rationing or some other means) it takes some time for the public to start buying that product again even after it becomes plentiful. If the buying public loses its appetite for pork, post-war markets will have to be built up again.

Another reason why Quebec farmers should go "all out" in pork production is that the Montreal market, within easy reach of Quebec farmers, is being cornered by shippers from other provinces which raise more pigs than we do. Quebec can keep its hold on this market but only if our farmers start doing something about it now.

AGRICULTURAL MERIT COMPETITION, 1942

For purposes of the Agricultural Merit Competition the province is divided into five districts and the contest is held in one of these districts every year. In 1942 farmers living in district No. 2 will take part in the competition, the counties of Arthabaska, Beauce, Bellechasse, Dorchester, Frontenac, Kamouraska, Levis, l'Islet, Lotbiniere, Megantic, Montmagny, Nicolet, Riviere-du-Loup, Temiscouata and Wolfe, certain parishes in the counties of Montmorency and Quebec, and all the Island of Orleans. The last competition was held in this district in 1937, when the Gold Medal was won by Mr. Severe Tardif and Mr. Pierre Turgeon won the Silver Medal.

The competition is open to all farmers in the district mentioned above. Anyone who wished to take part has only to see his agronomer and get the official forms of application from him. June 1st is the closing date for applications to be received at the offices of the Department at Quebec.

In 1937, the last year that the competition was held in this part of the country, 170 farmers took part. It is confidently expected that there will be many more competitors this summer.

OUR SOILS ARE STILL ACID

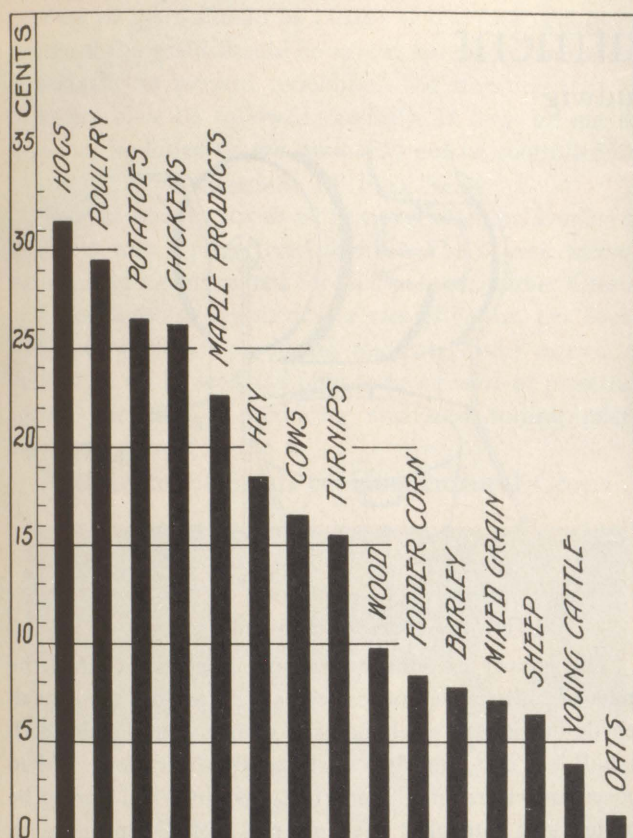
Last year 100,000 tons of limestone were spread on Quebec fields — twice as much as the year before. And this year it is hoped that 125,000 tons will be used. But even so, only about 1 field in every 100 is treated with this important amendment and in view of the high percentage of acid soils in this province and the comparatively low yields per acre of grain and hay crops, we are still a long way from achieving the maximum use of this valuable treatment.

The Department therefore issues an appeal to farmers, and to its agronomes, for a wider use of lime, in conjunction with those three essentials to proper plant growth — nitrogen, phosphorous, potash. Even the goal of 125,000 tons set for 1942 will still be short of the amount necessary if we are to make the most of our soils and grow the quantity of feed necessary for our increased numbers of dairy cows, hogs and hens.

Bonuses are paid for transportation of limestone, either by truck or by railway and in 24 agronomic districts there is available machinery for grinding limestone where the coarse product may, at small cost to the farmer, be put into a form in which it is easily handled.

In connection with the liming policy the announcement concerning the government's marl policy, which appears elsewhere in these columns, will be of interest.

The Canadian Wool Board Ltd., has made a ruling that any wool tied with binder twine is subject to a penalty deduction of one cent per pound.



This chart shows the average returns per hour of labour for different crops on the Provincial Demonstration Farms for the period from 1930 to 1940.

BONUSES FOR STALLIONS

Owners of registered stallions will be interested in the following announcement concerning rates of bonuses. These rates have been made retroactive to May 1, 1941, which means that bonuses earned during the 1941 season will be paid on the new basis.

These are the bonuses which will be paid by the Federal and Provincial Governments to stallion owners:

The Federal Government will pay:

For	Stallions graded	
	A	B
16 to 20 mares in foal	\$30.00	\$30.00
21 to 30 "	60.00	40.00
31 to 40 "	90.00	60.00
41 to 50 "	120.00	80.00
Over 50 "	150.00	100.00

The Provincial Government will pay:

Each of first 25 mares in foal	5.00	3.00
Each of next 25 "	1.00	1.00

And as long as we are speaking of stallions, may we remind our readers that no stallion may be eligible for bonus which has not been inspected by duly qualified Government inspectors. Requests for inspection will be received by the Department at Quebec up to May 31, but not later.

Meeting of the American Purebred Dairy Cattle Association

A number of Canadians including Prof. A. R. Ness of Macdonald College, Prof. G. Toupin and Frank Napier, President and Secretary respectively of the Canadian Ayrshire Breeders' Association, and Mr. George Clemons, Secretary of the Canadian Holstein Breeders' Association, attended a meeting of the American Purebred Dairy Cattle Association held on April 9th and 10th in New York City.

In recent years there has been a marked tendency on the part of those guiding the destiny and representing the interests of all of the different breeds of dairy cattle to work very closely together on questions of common interest. A constructive and really consolidated effort has been made to simplify and especially to unify rules and regulations governing matters of testing individuals and herds for milk and butter fat production, herd type classifications and the giving of recognition to meritorious animals, such as designating proven sires.

Three important items of business were brought before the meeting, all three of which should have a far reaching influence on the progress of all breeds in the future.

First came the discussion of uniform and adequate rules and minimum requirements for declaring a bull proven on the basis of his progeny. It was unanimously agreed that all records of cows and daughters should be converted to two times per day milking for a period of 305 days, and that the conversion factors established by the United States Department of Agriculture be adopted by all breeds for age, frequency of milking, and length of record. The minimum number of daughter-dam comparisons in order to establish the proven worth of a bull would be five.

The second important item to come before the meeting was the adoption of an already prepared score card which would be suitable for use with all of the dairy breeds, such things as breed characteristics for each breed to be designated separately on this score card.

The last day of the meeting was confined to a discussion of problems arising out of the practice of artificial insemination. Artificial insemination is growing very rapidly and it was realized that very careful records and supervision are required to safeguard the purity of blood when this work is conducted in herds of purebred cattle. The afternoon was given over to a preparation of the necessary forms and certificates to authorize the practice of artificial insemination and to provide proper records of sources of semen and its implantation.

The report of such a meeting as this is adequate evidence of the manner in which the interests of the various breeds are attempting to place their endeavours for breed improvement upon a sound and constructive nation-wide basis.

Seed Treatment

by R. A. Ludwig

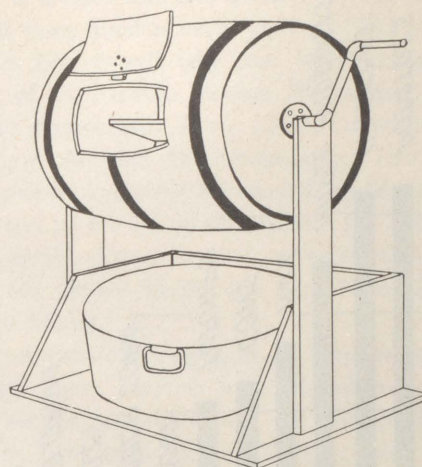
PROPER seed treatment is a sure method of controlling many seed-borne diseases, such as the oat smut, which cause a reduction in yield and quality of the crop.

The treatments now commonly recommended for seed grain are formaldehyde (sometimes called formalin), copper and mercury dusts, and hot water. These are chiefly used to control the smut diseases, the first two for smuts of the covered type and the latter for loose smuts. All of them will, however, kill many surface-borne disease organisms and the hot water treatment will kill certain other internal ones besides those causing the loose smuts.

The formalin treatment is usually applied as a 1 to 320 solution (1 pint of commercial formaldehyde to 40 gallons of water). This should be sprinkled (with a watering can) on the grain, while it is being shovelled from one pile to another on a clean floor, at the rate of 1 gallon per bushel. The grain should then be covered with clean sacks or blankets for 4 hours. In the case of oats, the formaldehyde may be applied as a concentrated solution consisting of 1 pint of commercial formalin to 1 pint of water. This solution should be sprayed on the grain while it is being shovelled from one heap to another, at the rate of 1 quart to 50 bushels. The solution should be applied as a fine spray from a hand garden sprayer rather than from a watering can. The formaldehyde treatment should never be applied to hullless oats. Its chief disadvantage is that it often causes seed injury. Delay between treating and planting, allowing the seed to become too dry before planting, planting in dry soil and using too strong a solution, all increase injury. Seed weakened by age, frost, or close threshing is more susceptible to injury than sound seed.

Since the seed is often injured, weaker plants more susceptible to soil-borne diseases may result. Its main advantages are that it is cheap, that it satisfactorily controls the covered type of smut and that there is less danger of human poisoning from it than from certain other chemicals.

The copper and mercury dusts are applied as dry treatments. The ones commonly recommended are copper carbonate and the two mercury compounds, New Improved Ceresan and $\frac{1}{2}$ oz. Leytosan. Copper carbonate cannot be satisfactorily mixed with the grain by the shovelling method, and a mixing machine is necessary. A home-made machine that will insure thorough mixing can be made out of a barrel mounted between two standards. A handle is attached and an opening, fitted with a dust-tight cover, is made in the side for putting in grain. A strip of board attached to the inside acts as a baffle. A bushel of grain and a suitable amount of dust are inserted and the barrel rotated for two or three minutes at 30 revolutions per minute. It is possible to purchase continuous flow commercial machines that give satisfactory results.



This duster can be easily built at home.

The copper carbonate treatment does not control the smuts of hulled oats and barley as well as does the formaldehyde but it may safely be used with hull-less grains such as hull-less oats, hull-less barley and wheat. It is sold in concentrations ranging from 18% to 50% and should be applied at a rate of 2 to 3 oz. per bushel depending on the concentration and whether or not the grain is heavily smutted. The advantages of copper carbonate are that it does not injure the seed and that treating may be done 2 or 3 weeks before sowing thus lessening the work at seeding time.

The mercury dusts, New Improved Ceresan and $\frac{1}{2}$ oz. Leytosan, should be applied at the recommended rate of $\frac{1}{2}$ oz. per bushel. They are effective in controlling the surface carried smuts as well as other surface carried disease-producing organisms. They do not cause seed injury unless they are applied in excessive amounts or used for the treating of tough grain. With the recommended rate and normally dry grain, treating may safely be done 2 or 3 months before seeding time. The chief disadvantage of the copper and mercury compounds is their poisonous nature both to humans and to livestock. In handling these dusts the precautions recommended by the advertisers should be strictly observed. While making the treatments the mask, obtainable with the mercury dust, should be worn. Left-over seed grain should not be fed to livestock and containers holding the mercury compounds should be kept out of reach of children.

The hot water treatment is used for the control of loose smuts. The treatment consists of soaking the grain in water for 4 hours at room temperature, warming in water at a temperature of 120°F. for 2 minutes and then immersing for 10 minutes in a hot water bath maintained at 128°F. in the case of barley and 129°F. in the case of wheat. Unless adequate facilities are available only a small

quantity of grain should be treated at one time. Following treatment the grain should be spread out to dry, and stirred occasionally to prevent moulding. The directions for the treatment must be followed carefully. If they are not the seed may be killed or the smut may not be controlled.

Treatment of Flax Seed

Poor or uneven stands of flax may often be avoided by treatment with a protective fungicide. The organic mercury dusts are admirably suited for this purpose. Either Ceresan or $\frac{1}{2}$ oz. Leytosan applied at a rate of $\frac{1}{2}$ oz. per bushel will destroy disease-producing microorganisms carried on the surface of the seed and offer some measure of protection against the disease producing and seed rotting microorganisms present in the soil.

Treatment of Seeds of Horticultural Crops



Treating small quantities of seeds.

Treatment of crops such as beet, mangel, spinach, cabbage, turnip, cucumber and squash can be done with Semesan. A booklet giving directions for the use of this disinfectant with the various vegetable seeds comes with each container. Cuprocide may be used as a substitute but should not be applied to seeds of cabbage, turnip and other crucifers since they are susceptible to injury by copper compounds. Cuprocide, rather than Semesan, should be used for the treating of tomato seed since the large quantities of the latter which adhere to the seed surface often cause injury. New Improved Semesan Jr. or Semesan may be used to good advantage for the treatment of sweet corn. Directions for the application of both the chemicals to sweet corn are given by the manufacturer.

Dry treatments may be made by using a barrel treater such as that already described or if small lots of seed are being used, by shaking the seed in a large fruit jar with an appropriate amount of dust.

Peas warrant particular attention because they are parti-

(Continued on inside back cover)

NO BACKFIRE

Under the protection of KOLO Sprays the fruit, leaves and fruit buds live and grow—comfortably. There is no backfire to this protection. That is, KOLO Sprays are as soothing to leaf tissue, latent buds and fruit as they are strong in their protection against fungus attack.

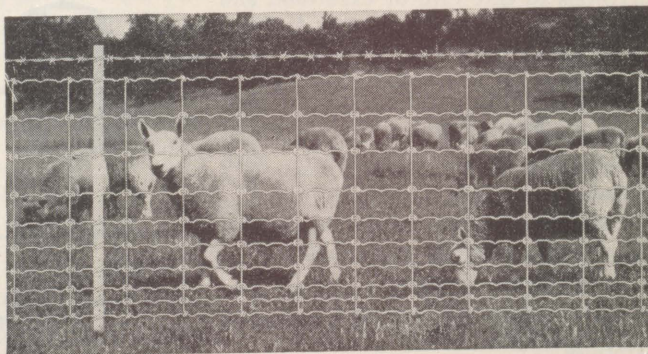
The way KOLO Sprays are made—FUSED sulphur ADSORBED into bentonite—is the secret of their behavior.



Only KOLO Sprays are made as KOLO Sprays are made. Only KOLO Sprays give you the results that KOLO Sprays give. Practice proves it.

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Security Fence Division

Canada Cement Bldg.

Montreal

Mistakes Made Making Concrete

The following are some of the mistakes often made in the making and use of concrete:

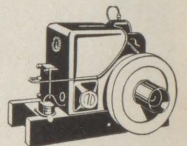
1. Using ice cold or dirty water.
2. Disturbing concrete after it has commenced to set.
3. Allowing mixed batches to remain unused more than half an hour.
4. Washing with pure cement; always use a portion of clean sand.
5. Failing to protect new work from too rapid drying or freezing.
6. Failing to tamp thoroughly.
7. Neglecting to soak old concrete with water before trying to join it to new work.
8. Failure to keep molds and forms well oiled to prevent concrete sticking to molds and wooden forms from swelling.
9. Trowelling the work too much.
10. Using a trowel to even the surface; use a float or striker and then allow the water on top to evaporate before finishing with a trowel.
11. Neglecting to put in joints and divisions to take care of expansion and contraction.
12. Making the mixture too rich, causing cracks.
14. Failure to wet sand, gravel or stone; this makes the cement stick better.
15. Neglecting to inspect the ingredients carefully before using them.
16. Guessing at proportions of materials. They should be measured carefully.

When applying manure to a field it is necessary to keep in mind its general level of fertility as well as the needs of the crop to be grown. Apart from its plant food value, manure is needed in certain soils to keep up the proportion of humus and thus improve soil moisture and tillage conditions. Over a period of years, light frequent applications, carefully spread, tend to give better returns than larger applications at longer intervals. But like so many other farm practices the method followed must be particularly suited to the needs of the individual farm.

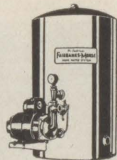


FAIRBANKS-MORSE "Z" ENGINES

Standard power unit on Canadian farms for years. Sizes from 2 to 18 horsepower. Operate on tractor fuel, gasoline, kerosene or natural gas.



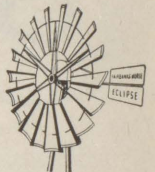
FAIRBANKS-MORSE WATER SYSTEMS



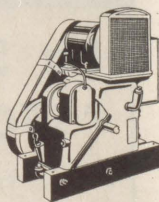
Electric or engine driven systems (piston or ejector type) to suit all circumstances. Balanced units, built to run economically without attention.

FAIRBANKS-MORSE WINDMILLS

Famous for more than 60 years. Simple in design—self-oiling, roller-bearing construction. Available in 6, 8 and 10 ft. sizes, each size with adjustable strokes.



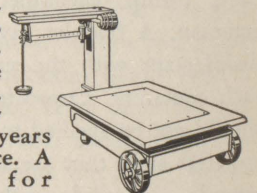
FAIRBANKS-MORSE LIGHTING PLANTS



Small, compact units of proved economy and reliability. Driven by the famous "Z" engine. In sizes up to 5,000 watts.

WARREN SCALES

Guaranteed to give accurate weight. Strongly built for years of service. A model for every purpose... platform, household, dairy, weigh beams, etc.



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WAR SAVINGS
CERTIFICATES**



Canada West Indies Molasses Co. Ltd.
MONTREAL

Don't Throw Out Old Machinery

Make use of your farm machinery no matter how old or how new it is, is the appeal of Angus Banting, agricultural engineer, Nova Scotia Agricultural College. He points out that worn out, discarded or partially scrapped machines may now be disposed of to farm machinery companies as scrap, for rebuilding or for resale to farmers in need of such machines. Instead of cash, the machinery agent can give a credit note to be used against the purchase of repair parts or new machines. Three benefits will come to the farmer who thus gets rid of unused equipment. (1) Disposal of machines which are taking up room which may be valuable, and clearing up unsightly yards, (2) building up some credit with dealers for the purchase of parts, (3) the use of old metal for war effort either as scrap or to build new farm machinery.

The Bacon Board has a problem on its hands in maintaining export volume for the remainder of our contract with Britain. Fullest co-operation from producers in marketing hogs at heavier weights, and from consumers in confining pork purchases to those products not required for export is of vital importance.

Weed Control

Weeds, as a rule, are not difficult to control if we can keep ahead of them. Conservation of water by weed control is one of the most efficient methods we are not controlled during the early have for making better crops. If weeds stages of their development they become more difficult to control in addition to robbing the soil of the moisture and the plant nutrients needed by the crops.

Shallow cultivation, which affords a thin layer of fine soil at the surface, not only conserves soil moisture by removing the weeds before they have had an opportunity to rob the soil of moisture, but also helps to reduce evaporation from the soil and makes conditions unfavorable for the germination of any weed seeds within the zone.

No. 25

**MIRACLE
BILL
SAYS**



The other night I saw one of these industrial movies . . . showed how autos are made. What I liked most was the way they make all those different parts come together at just the right speed to the assembly line. I figured that if the supply of crankshafts or connecting rods got slowed up, it would slow up the whole works, even though all the other parts were ready and waiting at the right minute. Which is what I've tried to say several times about producing eggs. A hen's laying speed depends on her getting all the things she needs to make an egg—all the parts—in the right proportion and speed. If her feed is short on even one thing—it slows up her assembly line. She can't turn out finished eggs any faster than the slowest part. And that's why **Ogilvie "Miracle" Laying Mash** speeds up egg production—it supplies a perfect balance of the "parts" at the proper speed. But, besides that, hens

lay longer
with balanced
feeding.



**MAKE IT
PAY**

THE "MIRACLE" WAY

The OGILVIE FLOUR MILLS Company, Limited

42-15

No. 28

MIRACLE BILL SAYS



I just visited two farms next to each other. One has thirteen cows, the other ten. The first chap is mixing his own feed and is getting three hundred and twenty pounds of milk a day. The other one is using Ogilvie "Miracle" 24% Dairy Feed with home grown grain. And with three less cows he's getting four hundred pounds of milk a day. He gets a dollar sixty for his milk against a dollar fifty for the other one. The Feed with Ogilvie "Miracle" 24% Dairy Feed costs twelve cents a day more, but it gives him a profit of two dollars and thirty cents more than the man with the thirteen cows. Well, now, it sure seems to me that's a good investment. I'd like to know of any other way you can get your money back nearly twenty times over day after day—it's got the stock market beat for fair. After I talked with the farmer who's losing out, he went off hot foot to buy some of that "Miracle" 24% Dairy Feed in the dotted bags.



**MAKE IT
PAY**

THE "MIRACLE" WAY

The OGILVIE FLOUR MILLS Company, Limited

42-18

THE QUESTION BOX

Have you any problems that are bothering you? This column is at your disposal. Address your questions to the Editor, Macdonald College, P.Q.

Question: Will you please recommend a good book on construction, repair and maintenance of farm machinery.

E. M. Rimouski.

Answer: We would suggest "Farm Machinery" by Archie A. Stone, published by John Wiley & Sons, New York. It deals in detail with the overhauling and repairing of each implement. The cost is \$3.00.

Question: If I treat my seed potatoes with Semesan Bel must I plant them at once?

A. R., Abbotsford.

Answer: If your potatoes were treated whole they may be held for 2 or 3 weeks before planting. However, if cut tubers were treated they must be planted immediately after treatment.

"Sell and repent, but sell!"

The International Wool Secretariat sells all the wool produced by them for the wool-growers of Australia, New Zealand and South Africa.

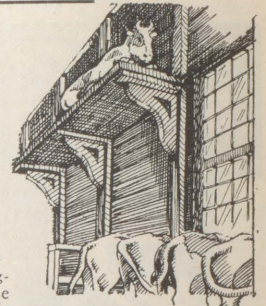
These three areas produce most of the world's supply of wool; their output is so large that it can be sold only in world markets.

The wool clipped each year is sold by public auction. The wool-growers' slogan is, "Sell and repent, but sell!"

The result is that the world uses wool and wants more of it. There is no unsold wool to be carried over from one crop year to the next; and our farmer cousins "down under", whose output *does* control world prices for their product, live by their own effort and not on assistance from their Governments.

In all of this, there is a lesson and an example for the grain growers of Western Canada.

IS THIS THE CASE IN YOUR HERD?



Would you willingly put a cow on the shelf? Well, that's what you're doing if you have a non-producer in your herd. 9 out of 10 shy breeders can be successfully bred through the use of

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You don't have to take our word for this statement. Tests conducted by the British Columbia Department of Agriculture, leading agricultural colleges and many prominent breeders, prove it to be true. Write TODAY for the REX BOOK OF FACTS. It tells the complete story.

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is VITAL Steel available for metal roofing is curtailed. Make every effort to make your present roof last. Write us describing the condition of your roof and let us offer suggestions.

The high standard of REED'S METAL ROOFING will always be maintained even if the supply is limited.



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Gleanings from the Home

As spring approaches the need for protection from flies and other vermin suggested to me that I might interest your readers by giving them a brief description of the combination screen and storm doors which I have made and installed in my home for the winter and spring. They are made as follows: Build a door of tongue-and-groove spruce boards, any widths, seven-eighths of an inch in thickness and free from knots. Have the middle cleat lower than the middle of the door. Above this, cut out a rectangular piece large enough for a screen to be inserted from the inside, consisting of a frame to fit tightly into a groove or rabbet and held in place by a small bolt on each side, with wire screen nailed to the outside of the frame. The piece thus cut out of the door, when cleated neatly together, will make a cap just the right size to fit back into the place when the screen is taken out in the fall, and can be held in by the same bolts. This will make a good storm door for the winter without any re-hanging.

I have made five of these doors for my home, painting them white to match the trimmings of the house; they are convenient to change in spring and fall, and give a good appearance from the outside.

F. C. HUMPHREY.

STRIPPINGS

by Gordon W. Geddes

Our fears as to weather conditions for the sugar season were quite unfounded. It turned out to be a big yield for those who got an early start and good for those (like ourselves) who were a bit late. A few warm days brought the first Mourning Beauty butterfly into view though. We never used to see them until we were gathering buckets but lately they've been here before the sap stops flowing. A flock of twenty wild geese also went over headed north. They kept formation as well as trained pilots in the R.A.F. At least there were no air-raid sirens shrieking when they went over.

Those same warm days did bring one kind of shrieking to break the monotony of gathering sap. They softened the remaining snowdrifts so that most of the neighbours took to the field. One who didn't get in difficulty with a lifey team and could only holler for help but he sure could holler! At first I thought the circumstances must be desperate and tried to run. But it was a long way and I presently decided that he was less out of breath than I was and slowed down. Besides I would have been too 'all in' to be any assistance when I got there. He was quite thankful when he found himself extricated with his equipment all in one piece. Having someone within hollering distance when you get in a jam is one advantage in having neighbours. Maybe the tables will be turned next time or perhaps it will be someone else who has to help me out.

* * *

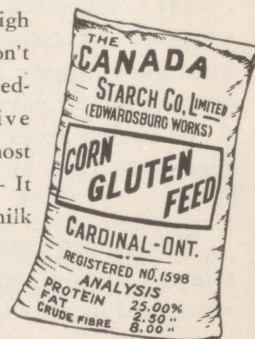
Now that farmers have a special colour in gasoline, why do they need to pay the gasoline tax and then get it refunded? Just think of the time, paper and ink that could be saved for war purposes if they didn't have to get an invoice with every purchase and go through all the rigmarole of paying the tax and getting it refunded.

* * *

It is to be hoped that the farm labour frozen on the farm on March 23 gets thawed out enough to be useful in the

GREATER PROFITS from your milch cows!

For a steady high milk yield — don't rely on pasture feeding alone. Give your cows this most effective feed — It increases the milk flow and butter fat yield.



EDWARDSBURG

GLUTEN FEED

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The CANADA STARCH COMPANY Limited

spring planting. It doesn't look as if there'd be enough to leave any in the shape of frozen assets. Some reports say there is a back-to-the-land tendency in industrial workers hoping for military exemption. Of course, they can't get it that way but farmers may get a little extra help before they find out. Still we have to share available man-power with other essential industries. Maybe we'll have to get a ration book and turn in a coupon for every day's work we hire.

At least the restrictions on extra deliveries and special services will save some labour as well as gasoline and rubber. Some of these regulations might well be kept in force in peace as well. If things are wasteful in wartime, they still are after the war is over. There are still a lot more places where savings could be made on man-power.

We had to class sugaring as a war industry and work a couple of Sundays to keep up with the flow of sap. We could have worked a third one but decided to go on strike and make poorer syrup as a result.

Water is a necessity on the farm. It can be drawn from the well and pumped to the house and barn with an electric motor for less than one dollar per month.

DRIED EGGS FOR BRITAIN

At the request of the British Ministry of Food all eggs are to be dehydrated and shipped as whole egg powder. Canada's commitment to ship 770,000 cases of fresh eggs, a total of 1280 carloads, will be greatly reduced in volume when dried, thereby conserving much valuable cargo space on board ship. If put up in barrels of 200 pounds each, such as the United States processors are doing, 600 dozens of eggs or 20 cases of 30 dozens each are reduced to one barrel.

This sudden change in request for a dried product, although coming somewhat as a shock, did not meet an unprepared industry in Canada, for preparations have been going on for some time with a view to getting the British people to accept at least a part of their needs in eggs as a dried product. Facilities for drying eggs were in operation, although the output has never been a full-volume business for the available machinery on a continuous production basis. It now appears that the balance of the commitments in eggs to go forward by June 1st will be dried without question, some eggs being temporarily stored in shell or broken into cans ready for drying as time permits.

This change in handling the eggs will not interfere with the bonus being paid on eggs for export, as the eggs will be routed to drying plants instead of to seaboard.

The quality of eggs for drying is just as important as for shell egg marketing.

The dried egg can be reconstituted by the addition of water; two full tablespoons of dry egg and two full tablespoons of water equal one whole egg. They can be used with ease for table serving of omelets, scrambled eggs, etc., as well as in all forms of baking.

No doubt the average consumer will soon appreciate the far-sighted economy of this necessary change in egg marketing for British needs; the advantages are many and the quality of the products is assured over a prolonged period of time.

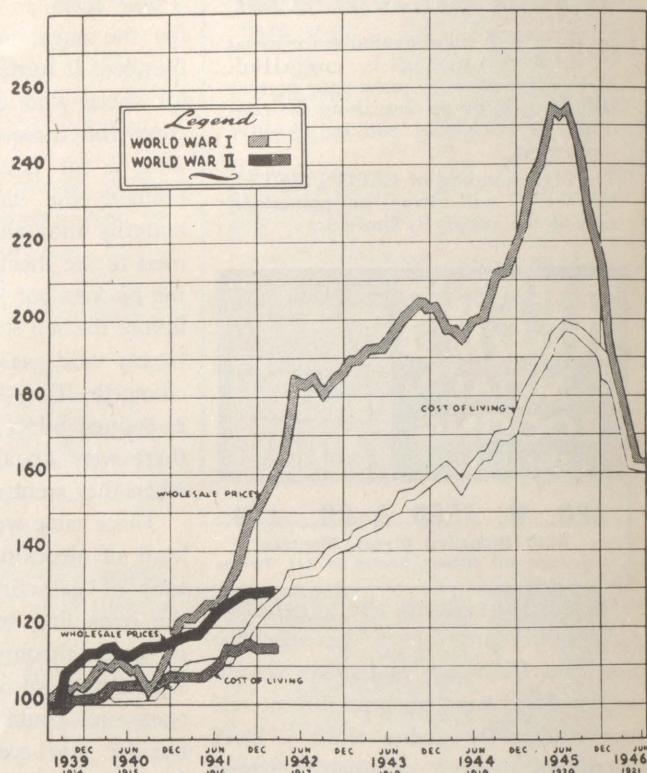
W. A. MAW.

Agricultural Engineer Develops Beet Seed Cracker

One of the things about the growing of sugar beets, mangels and similar beet crops that has always added much to the cost of their production is the large amount of tedious hand work in thinning the plants. The seeds from which beets are grown look like corky balls and each contains several seeds or germs, so that, even if these balls are planted singly there will be not one but several plants coming up close together. As a result of this characteristic the thinning of beets requires much stooping and finger work, making the job slow and expensive.

CANADIAN WHOLESALE PRICES AND COST OF LIVING WORLD WAR I AND WORLD WAR II

FIRST PRE-WAR MONTH=100



This interesting graph put out by the Wartime Prices and Trade Board tells its own story. Wholesale prices and cost of living, in full career last summer to follow the trend of the first World War, were caught by the control measures and have levelled out satisfactorily since. The Board, with the co-operation of the people of Canada, can prevent the disastrous inflation of the early '20's.

Many years ago the writer remembers western Ontario farmers breaking these seed balls by placing a thin layer of seed balls in a bread pan, then setting the pan on a concrete floor and breaking the seed balls by light ramming with a flat iron. This was more or less effective, but no one seems to have followed up this idea until recently, when an Agricultural Engineer, Roy Bainer by name, of the University of California hit upon the idea of a successful machine for breaking the seed balls of sugar beet seed. Bainer's machine is very simple, consisting of an abrasive wheel or stone which whirls the seed balls against a metal shear plate, splitting the seed balls, or "singling" the seed, as the operation is described. This makes the thinning of sugar beets as easy as that of turnips, long recognized as much less arduous work than the job of thinning beets.

Bainer's singled seed has been widely tested throughout the beet growing states of the west during the last year and has been pronounced satisfactory. With Quebec just about to launch a project in sugar beet growing, this new development should prove of great interest and value.

L. G. HEIMPEL.



THE WOMEN'S INSTITUTES SECTION

*Devoted to the activities of the Quebec Institutes
and to matters of interest to them*

WOMAN'S PLACE IN THE WORLD OF TO-DAY

by M. Elizabeth McCurdy

Many startling changes have taken place in the status of women in the past few months, and much advice has been offered to them as to their place in to-day's changing world. A certain amount of this advice is good, since it teaches women the truth that the most effective arena for them is in the home.

War work will inevitably affect the usual schedule of daily duties in the home of the average woman, and it will be wise for her to study out how much this will be the case, and to willingly allow the daily programme to be rearranged to suit conditions, and to cover her duties in war work.

Where a woman has had special training, it will be wise for her to offer her services along the lines of her training, and to try to secure training for her special task, where possible. A great deal of war work is often to be found in one's own vicinity without going farther afield.

It is a well-established fact that the morale of a nation at war depends in no small degree upon its women. The every day life of Canadian women may well be a vital force in Canada's defence in the present crisis.

The world is learning that, in war, *food* is power. It devolves therefore upon women to make use of this mighty weapon by a careful use of all foods that pass through their hands. Waste at present, and for an indefinite time to come, is a crime. Budgets may be planned to save sugar and all other foods which are a vital need everywhere. Women may encourage and assist in the production of bacon, eggs, milk, vegetables and small fruits. She may be knitting and sewing, and at the same time be attending to the health of the family, building morale and creating healthy attitudes.

Women Outside the Home

But women cannot stay altogether in the home, as things are at present. With the coming of the extensive manpower programme in Canada, women step into the lime-light as expert mechanics, operating machines and motor trucks, and tractors. The transfer of men to new forms of employment is leaving vacancies which women must fill. If found necessary, steps will be taken to compel employers to accept women for positions formerly filled exclusively by men.

British Women a Defence

English women are being given great credit in helping to defend the Island, by war work done in their own homes, by caring for evacuated children, and war workers transferred from one section of the country to another. Nurses

in hospitals are said to be "doggedly doing a job of work of the first importance". And on the whole health front English women are in a quiet and unspectacular manner doing a great work in maintaining the health of the whole population.

'Teen-Age Girls in War Work

Instructed by experts the new School-Girls Army of Britain is now established in London, where fourteen to seventeen years-old girls are given training which transforms them into seasoned recruits for the Women's Services, Nursing and War Industries. This, although the youngest of all training schemes in Britain, bids fair to become a most successful part of the youth training-plan.

Norse Girls Do Not Accept Defeat

A training camp in Scotland, once the home of Annie Laurie, is now the scene of a gathering of girls who escaped from Norway, and are now in process of learning to drive ambulances, military cars, trucks, as well as nursing and general office work. These girls crossed the dangerous North Sea, in fishing boats and other small and frail craft, and are looking and working toward the day when German domination will come to an end in their beloved homeland.

Changes in Dress

All London gasped when trousered females first made their appearance among the diners in public places. A few months time has changed all that, and trousers are now accepted as woman's war-time wear in offices and all other war-time occupations. The garments are well-tailored and fit as perfectly as those worn in diplomatic circles. There is a wide and attractive range of colours to choose from, and while these mannish clothes will never supersede standardized feminine attire yet they will no doubt find a place in future in sports and in the workaday woman's world.

CONVENTION DATE SET

The annual Convention of Quebec Women's Institutes is to be held at Macdonald College again this year, the dates set being June 30, July 1, 2. This is somewhat later than usual, owing to a variety of causes which affect both the College and the delegates, as well as teachers. The programme has not yet been completed, but promises to be as interesting and informative as those of previous years.

Q. W. I. Notes

by M. Elizabeth McCurdy

MARCH is the month for the annual meetings of Quebec Women's Institutes, when all Branches sum up the year's work under the various departmental headings, and elect officers and conveners for the coming year.

As the annual reports in each Branch cover practically the activities of the whole past year, they have been already published in the Journal each month, and cannot be repeated here. The annual meeting is in itself a full programme, so that little remains to be told of activities in the past month.

What One Branch Accomplished

Cleveland Branch in Richmond County, is not a large Branch, but evidently has "what it takes" to achieve results. A series of "vanishing teas" given by the members resulted in a total of \$100.00, which was forwarded to the Queen's Canadian Fund. This proves what a small number can do by industry, co-operation and the will to serve.

Bury Branch Loses Valuable Member

Members of the Q. W. I. who have attended Convention at Macdonald College, and particularly those who were present at the Short Course for women held there in February, 1941, will learn with regret of the recent death of Mrs. C. C. Lindsay, a member of the Bury Branch. Mrs. Lindsay was an active worker and a cheerful and popular member for many years, and will be greatly missed both in her own community and in Compton County as well.

Mrs. R. Thomson Honored

At the last meeting of Abbotsford Institute, Mrs. R. Thomson was presented with a life membership in the Q. W. I. from the Branch, in token of appreciation of her work. Mrs. Thomson is Vice President of Abbotsford Branch, and Convener of Education for the Province. She has also a seat on the Home and School Council, where she represents Quebec Women's Institutes.

Spooner Pond Increases Membership

Five new members were received by Spooner Pond Branch at its last meeting. Mrs. A. E. Abercrombie, Provincial Secretary of Q. W. I. was present as guest speaker, and described the work of the War-Time Prices and Trade Board and its object which, she said, are to prevent inflation during and after the war.

Special events after the business meeting were the coin "shower" presented to the little son of Mrs. John Hawker, Jr. — his grandmother, Mrs. Blanchard presenting the gift. Another interesting feature was a "shower" for a future bride, Miss Florence Bailey, presented by Mrs. Raymond Lampron and Miss Ruth Lockwood.

Full Programme at Cowansville

Topics at the meeting of Cowansville Branch included articles on the salvage campaign, the conservation of fuel, sharing herb seeds, clarifying fats for cooking uses, the

virtues of soy beans, and "Toads for Home Defence", as the toad is a friend of the farmer and gardener.

The recommendation of Lady Tweedsmuir that every community arrange for an archive in which the historical events might be preserved was read and considered.

Six leather vests for sailors and five quilts for the Red Cross were in process of making by their Branch.

Red Cross and War Work

War Saving's Certificates are being bought regularly by Cookshire Branch. A discussion on production of eggs and garden produce in aid of war funds was carried on in the meeting. Lennoxville has organized a Bundles for Britain committee, and has sent several large consignments to Montreal for shipment overseas. Ascot gave 62 articles to the Red Cross, 2 quilts and Bundles for Britain. Brompton sent 20 articles to Red Cross, including a quilt, sent two boxes overseas, valued at \$9.50, and sold War Stamps to a value of \$21.25. Granby Hill made 230 articles for Red Cross, including 2 quilts and 1 blanket. Beech Grove did both knitting and sewing, and Bristol Busy Bees are buying Victory Bonds. Stark's Corners, Wyman, Clarendon and Elmside completed a large number of quilts. Abbotsford gave \$2.00 for R. A. F. Comforts and Brownsburg purchased a \$50.00 Victory Bond, and sponsored the formation of a Red Cross group in the community. Upper Lachute, East End donated \$10.00 to the Queen's Canadian Fund, and 3 quilts and clothing to the Red Cross.

Tomifobia sent 13 knitted and 10 sewed articles to the Red Cross, including 4 quilts; Dixville 3 knitted and 20 sewed articles, and reclaimed 80 used garments, with \$4.00 in cash for Red Cross refugee work. North Hatley gave 13 prizes in War Stamps in a health contest. Way's Mills sent quilts to the Red Cross also an afghan, and voted money to the blanket fund.

Wakefield Branch sent clothing to the Women's Naval Auxiliary and for Civilian Bomb Victims. Wright Branch spent the proceeds of a social evening on comforts for sailors.

Home Economics

The subject of the Price Ceiling was studied in many Branches, notably in Lennoxville, Ascot, Cowansville and Aylmer East. The conservation of sugar by using recipes with less sweetening, and suggestions for substitutes were dealt with in several Branches. Miss Fairbairn, Domestic Science Teacher in Shawville High School spoke on the latter subject in Shawville Branch. An address on "Increased Production" was heard in Wright Branch, the speaker being Mr. Petit, local Agronomist.

Education

School Law in its relation to School Boards and School Staff was the subject of a paper in South Durham Branch. North Hatley is offering a \$50.00 scholarship in Grade 10 of the High School there. Abbotsford gave \$2.00 in prizes in War Savings Stamps.

Child Welfare.—Elmside assisted a family of fire sufferers with bedding and other necessities. A paper on the care of a child in its first year was a feature of the meeting.

WOMAN AS A CITIZEN

Among the qualities almost universally found in women is the capacity of devotion to a cause. Women can be loyal to a purpose, once it has gained her approval, for a very long time. In fact, it might almost be called one of the failings on women that they find it very difficult to change their loyalties from a cause even when the cause has proved unworthy. Once she has made up her mind to do a thing, no matter what stands in the way of its accomplishment, a woman usually succeeds in doing what she set out to do.

This singleness of purpose makes womanhood a very powerful factor in home, community and national life. If she makes up her mind, woman can make her home more beautiful, her surroundings more pleasant, her community a better place for every one in it. She can become more alert mentally, more healthy in body, more steady and reliable in every way. In the hands of mothers rests the welfare of the race. They can teach children the value of liberty and justice, and to pass on these principles to those who will come after them until the ideal becomes the reality.

Liberty is the privilege of enjoying rights, — not the destruction of the rights of others. There are restrictions in liberty which prevent it harming the liberty of others. These restrictions need to be taught and accepted, if harmony is ever to take the place of discord and strife.

To use to the fullest extent her influence for the betterment of the race, woman will need to avoid mass-thinking and spoonfeeding. She will face problems and wrongs and think her way through them towards the light. She will plan a line of action and set confidently forth to follow it, knowing that success comes to those who know what they want, and have the will and determination to keep steadily on their appointed way, overcoming obstacles and abiding by decisions.

DEFENCE PROJECTS IN AUSTRALIA

The making of Camouflage Nets is one of the major projects of the Women's Institutes in New South Wales. These nets are used to camouflage a bivouac of armed forces, including men, tanks, guns, and stores, so that they cannot be seen from the air. Thousands of these nets have been made and are still being made by the women workers, of heavy twine woven on stout wooden frames.

The making of sheepskin vests is another occupation which keeps many hands constantly busy. These are for the use of sailors and are a necessity in their work.

While Canada's lakes and rivers were winter-locked, and her vegetation dormant under heavy snows, the jam-making season was in full sway in New South Wales. Gooseberries were ripe in December, and strawberries plentiful on the markets everywhere. A great deal of voluntary work was done by W. I. members in factories specially equipped for making jam, and every possible care taken to conserve the year's crop. Members of the Institutes gathered and delivered the crop to the factories where it was made into jam.

PARENTS AND CHILDREN

by Mary Avison

This column will welcome comments or questions on the problems it deals with, or on others that arise in every normal home.

SECURITY

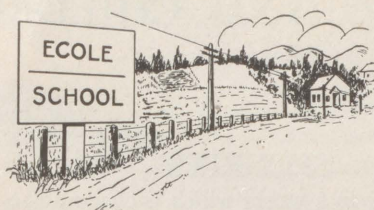
We live to-day in a world which is changing so rapidly that it is almost impossible to keep up-to-date. Changes are taking place which may alter the very foundations of our way of life. Even when Hitler is finally beaten as we are determined that he will be, the end of the war will bring drastic alterations to the world we know. Meanwhile the war itself is producing temporary changes which make it necessary to adjust our ways of doing and thinking in hundreds of directions. It is bringing to many of us uncertainty, worry, insecurity.

To children, whose basis of judgment is limited, the experience of such uncertainty, worry and insecurity can be permanently harmful. It can create fears and anxieties with which they are unable to cope; it can make them diffident, shy, and lacking in confidence because they cannot deal effectively with the situations which they have to face; it can make them jealous, irritable or subject to irrational fears. Unless we, the adults on whom they depend, — parents and teachers alike — can establish for them a deep and sound basis of security which no change can destroy, this may be the fruit of the war years and war experience for our children.

But, happily, a child's feeling of security or insecurity is not determined solely by such things as war or peace, wealth or poverty, health or illness. Rather, it is determined by the way he is helped to think about these things and by the constancy of the love and understanding he receives from those closest to him. To know that he "belongs" and is an essential part of a family group, to know that he is trusted by and can trust the other members of that group, to know that the love of his parents for him and for each other is unchanging and constant, and to know that their life together is firmly grounded in a faith in the integrity of life and of moral value; these are the things that create real security for the child in the face of the worst that the world can do to him. And these things can be maintained even in the extreme conditions of war.

ANSWERS ON GARDENS, CANNING

In view of the importance of the growing and canning of vegetables in Canada's war effort, the Agricultural Supplies Board, in conjunction with the Wartime Prices and Trade Board, have prepared a pamphlet giving answers to questions regarding practically every phase of home vegetable gardening and home canning of vegetables in wartime. Information is also given as to where to apply for further information on any subject desired relative to the growing and canning of vegetables in Canada. The pamphlet may be obtained by writing to Publicity and Extension Division, Dominion Department of Agriculture, Ottawa.



LIVING AND LEARNING



The War and Your Farm

"With people depending on us for food who never depended on us before our simple duty is to do our job in the best possible way", said Ralph Staples, vice-president of the United Farmers of Ontario in the excellent address which opened the summer series of Farm Radio Forum. He went on to point out the difficulties under which farmers laboured in trying to meet the demand of the war upon them. The depressed state of the industry has prevented many farmers from taking advantage of improved farm methods and new types of machinery which have stepped up agricultural production in the past few years. These farmers would continue to be seriously handicapped in a world of intense competition until this condition was remedied. The war has intensified the problem of inadequate equipment — it did not create it.

"Co-operation is the answer to the problem", Mr. Staples believed. Co-operative ownership of equipment on shares is not attractive to many farmers and there has been some unfortunate experience but the principle is sound. The fault of many attempts has been that the arrangement has not been on a sound business basis. More care in the planning of the shared use of machinery would make it possible to get on with the job.

THE FARMER LOOKS AT PRICE CONTROL

On June 1, H. H. Hannam, president of the C.F.A. will speak on "Price Control as it affects the Farmer". An unusual opportunity is offered in connection with this address. It has been arranged that Donald Gordon, Chairman of the Wartime Prices and Trade Board will answer questions raised by farm listeners. Mr. Gordon will speak on Monday, June 15th.

A special number of 'Farm Forum Facts' will be issued for June 1. Farm Forum Groups are asked to meet and submit reports and questions as they did during the winter. These will be forwarded to Mr. Gordon and he will speak to them. In this way farm people are offered the opportunity of a direct reply to their questions.

The annual conference of National Farm Forum officers is being held in Winnipeg — May 25th — 27th where the experience of the past winter will be reviewed and plans for 1942-43 will be completed.

REMEMBER — JUNE 8
Annual Farm Forum Conference
Macdonald College

The Forums Unite Us

Evidence has been accumulating in a very gratifying way that the Farm Radio Forum has made a real place for itself in Canadian agriculture. Numerous local rallies have been reported, at which farmers have spoken enthusiastically of the programme and the advantage that it has proved to their community. That it has had a stimulating effect on the work of our rural people and caused them to think seriously of problems of community betterment, there can be no doubt.

It is not so well realized that many non-farmers follow the programme and have thereby gained a better understanding of the problems of rural Canada. Recently unexpected evidence of this came from a worker in Trail, B.C., who reports:

"Today, one man, after reading 'A Report of Progress', said to me, 'Say, this stuff makes a fella see the other fella's point of view. You know, it's just occurred to me that that is the only way democracy will ever work — getting the other fella's point of view'."

"Although we work in the Fertilizer Division, it never occurred to any of us that we had any connection with agriculture, believe it or not, that's how self-centred people can get. Then one day a worker said after reading Food for Freedom, 'Gosh, ain't we got a part to play in all this? Ain't we producing the wherewithal that makes food grow? Canada and the States must feed the United Nations until the war is won'."

All the foregoing supports a great deal of other evidence that the Farm Radio Forum, besides being of direct interest and value to farmers, is a real force for national unity.

The Annual Conference of Farm Radio Forums of Quebec is to be held at Macdonald College on Monday, June 8th. The council of elected members will meet at 10 a.m. and the general meeting will be held in the afternoon. Premier Godbout and Dr. E. S. Archibald have been invited to speak. Coffee is being provided for those who bring basket lunches. All members of Farm Forums and their friends are invited to spend the day at the College.



THE COLLEGE PAGE

News of the College — Staff, Students, Graduates

TO THE GRADUATES



B.H.S. '42

Our congratulations are extended to the members of the graduating classes, who have accomplished their purpose in the face of considerable difficulty. They are going into the world equipped to render service, at a time when the services they can render are desperately needed. A number of the men have decided to enlist upon graduation: the others have accepted positions in essential industries or in technical agricultural service where their work will be of direct value to the war effort. Most of the women graduates will continue their education by taking a year of hospital training, after which positions will be available for them in some phase of war work, either on active service or on the home front. To them all we wish the best of luck.



B.Sc.(Agr.) '42

UNIFORMS

Ever since the early days of the College we have been used to seeing uniforms on the campus — the green and white of the household science students and the blue and white of the student-teachers. We have been criticized at times for insisting on uniforms for women students while at class, but the students appreciate the saving to themselves which these durable yet attractive clothes effect. In fact, we have been asked to arrange for uniform for women students in Agriculture next year.

With the adoption of compulsory military training another uniform appeared in the halls and classrooms — the battledress of the men students who devoted six hours every week to learning the fundamentals of Army routine and discipline.

Then with the coming of spring still another uniform appeared; the khaki of the Canadian Women's Army Corps. These patriotic young women have enlisted for service anywhere in the world where they can be of use to the armed forces of the Dominion. Macdonald College is the national training centre of the C.W.A.C. where all volunteers receive instruction in the organization and administration of army services, and learn the basic principles of drill and discipline without which no organized body of men or women can function efficiently.

But the coming of the khaki-clad volunteers has not been effected without major dislocations of the college routine and organization. In order to accommodate them the students of the School for Teachers have given up their comfortable rooms in the Women's Residence and their commodious classrooms and have moved into Montreal, where they will remain until the Army no longer needs their quarters at the College. The household science students have also had to move, though not so far: they are across the campus in what used to be the Men's Residence, out of which the men students moved into new dormitories in the Main Building.

It would be incorrect to say that these changes have had no influence on the work which has been accomplished during the session, but the dislocation of the normal routine of the College has been accepted cheerfully by both students and staff. Probably the greatest sufferers were the student-teachers who had to leave the College entirely, and who for some weeks had to carry on as best they could under most difficult conditions, living in temporary quarters and with most of their essential material packed and waiting to be shipped. That the many changes were effected with such competence and lack of rancour speaks well for the morale of the College.

THE MACDONALD CLAN

Notes and news of graduates and former students.



W. J. Reid (Agr. '11) was born at Reid's Mills, Ontario, where he received his early education. He obtained his Associate Diploma at the O.A.C., entering Macdonald College in the third year to graduate with the first class in Agriculture in the Animal Husbandry option.

During his course he took a leading part in all student activities, and early evinced those qualities that have distinguished his career, — steadiness, good judgment and a strong practical sense. He showed himself a forceful and convincing public speaker, winning the public speaking contest in his final year.

Following his graduation, he was for a time a member of the College staff as Assistant in Animal Husbandry, later occupying the position of Live Stock Superintendent for Prince Edward Island, and finally became Deputy Minister in the Department of Agriculture.

In 1924 he resigned from this position and purchased a large farm in the potato growing district near Kinkora. He specialized in potatoes, and later in turnip seed growing, and has always shown an interest in the raising and co-operative marketing of hogs. In recent years his farm has carried a large flock of Plymouth Rock and white Leghorn hens and broods as many as 2,000 chicks each year. He is also the owner of a herd of grade Holstein cattle.

For a number of years he was President of the P.E.I. Live Stock Marketing Board and the Maritime Chamber of Agriculture, and at present is an advisory member of the Canadian Bacon Board.

His eldest son will graduate from Macdonald College this year, and another son runs the home farm. Two daughters are attending Prince of Wales College, Charlottetown, one in second year and one in third year. Two younger sons and Mrs. Reid live on the home farm and make up the remainder of the family.

New Brunswick Short Course Features Spraying and Power Machinery

The New Brunswick Fruit Growers Association Inc. held a very successful two-day short course in connection with their annual meeting, April 21st and 22nd. The meetings were held in the Agricultural School Building on the grounds of the Dominion Experimental Farm at Fredericton.

The meetings were opened with an address of welcome by Mr. C. F. Bailey, Superintendent of the Experimental Farm, followed by the address of the President of the Association, Mr. B. O. Waugh and the annual report by the Secretary-Treasurer, Mr. A. G. Turney, Division of Horticulture, Department of Agriculture of New Brunswick. The remainder of the day was devoted to educational efforts. Prof. L. G. Heimpel, of the Department of Agricultural Engineering, Macdonald College, Que., gave two lectures and a demonstration on spraying machinery. Mr. S. F. Clarkson, Dominion Plant Pathological Laboratory, Fredericton, also addressed the meeting on the results of recent studies in the control of apple scab in New Brunswick orchards.

During the second day's session Mr. C. F. Bailey gave an interesting lecture on Pasture Improvement Practices found most successful at the Experimental Farm and Mr. J. E. McIntyre explained to the gathering the Dominion Government Fertilizer Subvention Plan in connection with increased food production. The remainder of the day was given over to lectures and demonstrations on Gas Engines, Tractors and Labor Saving Equipment for farmers. Interest was keen and attendance very good, about seventy-five farmers being present.

On Thursday, April 23rd, a conference of the heads of divisions of the New Brunswick Department of Agriculture was held in the office of the Deputy Minister, Mr. J. K. King. To this meeting were invited Mr. C. F. Bailey, Superintendent of the Experimental Farm, Mr. Bert Maxwell, Director of the Carleton County Vocational School, Professor L. G. Heimpel and several of the Agricultural Extension staff of the province. Plans were laid for summer activities which would aid to the greatest possible extent in overcoming the effects of farm labor shortages by the more effective use of machinery on farms.

Length of Cutting Season of Asparagus

Asparagus must not be cut over too long a period. The present year's asparagus crop was developed from food stored the previous year, therefore enough time must elapse from the end of the cutting season for the plants to store food for shoot development the next year. As a general rule, cutting should end about the time that strawberries are ripening.

PROSPEROUS
QUEBEC FARMS

JUTRAS

A MODERN STABLE IS A PROFITABLE STABLE

"JUTRAS" stable equipment will improve your operating conditions and increase your profits; it will also increase the value of your farm. The new "JUTRAS" installations contain the most modern improvements and the workmanship is of the highest quality. Our staff of experts will help you to solve your problems to your complete satisfaction.

cularly subject to pre-emergence and seedling troubles. A surface coating of a protective fungicide often produces spectacular results. This is especially true if seeding is followed by cold wet weather. Treatment may make the difference between a profitable crop and a complete crop failure. It always produces sufficient improvement to more than pay for itself. New Improved Ceresan applied at the rate of 1 oz. per bushel gives excellent results. Semesan at a rate of $2\frac{1}{2}$ oz. per bushel and Spergon at a rate of 2 oz. per bushel have also been recommended.

Wool Board Buys Canadian Wool

The Canadian Wool Board, Ltd., has been established under the Wartime Prices and Trade Board to act as sole agent in the buying and distribution of all Canadian produced wools, both shorn and pulled. All prices at which Canadian wools shall be bought and sold will be set by the Wool Board. The Board undertakes to purchase all Canadian produced wools for the duration of the war and for one year thereafter.

Prices for all grades and qualities of Canadian fleece will be set for 1942 so as to assure the grower of a reasonable return for his clip, according to its grade and quality. Settlement with each grower will be based on the grade, shrinkage, and general condition of his individual clip.

All agents, country collectors fieldmen, local associations, or other persons operating in the collection of fleece wool must be licensed by Canadian Wool Board, Ltd. There is no intention to upset unduly the regular and legitimate channel of trade through which individual clips have been handled for some years past.

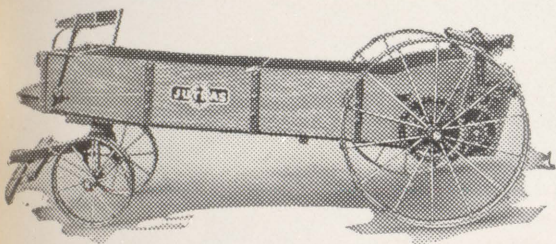
All wools collected, procured or solicited by a licensed operator must pass through a Registered Warehouse. It is unlawful for any agency or person other than a Registered Warehouse or Licensed Operator to buy or procure any ungraded fleece, and it is also an offence to sell or deliver to a Warehouse or Operator not licensed by the Canadian Wool Board, Ltd. Any non-delivery of wool to a specified warehouse must be reported immediately.

Any grower may ship direct to a Registered Grading Warehouse and in all cases final settlement, based on the prices set for the various grades, will go direct to the grower from or through the Registered Warehouse.

A NEW AGRONOMIC APPOINTMENT

Mr. Hector Tessier, B.S.A., has been appointed regional agronomer for District 2, comprising the counties of St. Johns, Iberville and Missisquoi. Mr. Tessier, a graduate of Oka in the class of 1925, where he specialized in Animal Husbandry, is competent in all branches of agriculture and is especially interested in canning crops and in the production of sugar beets. For some years he was employed as fieldman for the Canadian Cattle Breeders' Association and has acted as official agronomer in several parts of the province.

The "Jutras" ULTRA-LIGHT Manure Spreader



NEW MODEL
with
"LINCOLN"
GREASING
SYSTEM

More Jutras manure spreaders are used in Canada than all other makes combined: thousands of farmers are using them. This machine, on the market for over 40 consecutive years, is ideal for Canadian farmers. Its wooden box resists the acids in manure. Its forged wheels last longer. The cold rolled axles are more durable. The mechanism is easy to put into gear and traction is light. The weight is well balanced and the wheels do not sink into the ground. It is easily loaded and spreads evenly and economically. It is the lightest of all, and the easiest on horses. Perfect lubrication is assured with the new Lincoln pressure greasing system.

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Please send the Macdonald College Journal for two years to

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Print name and address clearly

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The Subscription Fee of \$1.00 for 2 years is enclosed.
(The price for a 1 year subscription is 50c)

Fill out this form and mail it with your subscription to:

THE MACDONALD COLLEGE JOURNAL
MACDONALD COLLEGE, QUEBEC

BACON FOR BRITAIN



A message to every hog producer . . .

During the next six months an insufficient number of hogs will be marketed to yield the 274,000,000 pounds of bacon which is required to complete the agreement with Britain (600,000,000 lbs.) . . . if the present average carcass weight of 158 pounds is maintained.

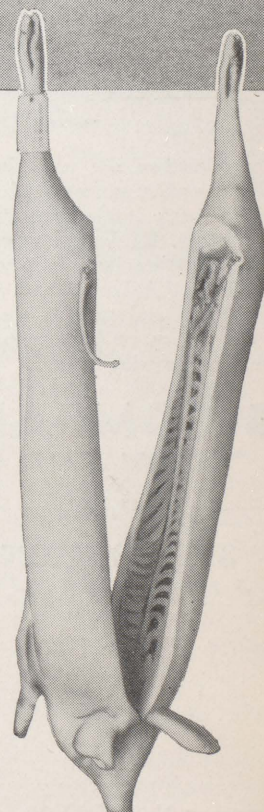
An increase of seven pounds in average carcass weight or from 158 to 165 pounds will add about 20,000,000 pounds of pork products to the available supply and will materially assist in assuring sufficient bacon to meet this requirement.

Each producer can help

By *not* marketing underweight hogs.

By carrying every hog to a weight which will yield a carcass close to the maximum (170 lbs.) for "A" grade, or about 215 lbs. live weight at the farm.

For further information consult your Provincial Department of Agriculture, Agricultural College, nearest Dominion Experimental Farm or Live Stock Office of the Dominion Department of Agriculture.



Weight for "A" grade carcass, 140-170 lbs.

AGRICULTURAL SUPPLIES BOARD
Dominion Department of Agriculture, Ottawa
Honourable James G. Gardiner, Minister